inevitably during the life of any democratic form of government, whether comparable to the one originating in Greece centuries before the birth of Christ, or a more modernized form, is the unfortunate tendency which too frequently is for unlimited government gratuities. Democracies thus affected eventually cease to exist.

Rev. Frederick Brown Harris, Chaplain of the United States Senate, recently said, as quoted in one of his Sunday Star columns, Spires of the Spirit:

"In our intricate civilization there is an increasing tendency to seek first life's secrets and to taboo its risks. When that becomes the ruling passion, it spells ultimate ruin to an individual or a nation. History fairly shouts that when any system takes as its goal comfort and convenience to such an extent that the qualities of adventure are bleached out, it is doomed."

Prof. Luigi Einaudo, former President of the Republic of Italy, in his message to the 10th International Liberal Congress at Oxford, England, said:

"Indeed, the theme which you will debate, the significance of social security in a free society, is of the greatest importance. We all agree on the necessity that the state receive the means to defend its citizens against the worst hazards and that the inequality of opportunity should be diminished. Still, without doubt, there also exists the danger that such a policy, instead of helping a free society, undermines it. An excess of social security can destroy the instinct to save, the feeling of family responsibility, and the affection for one's property, big or small. We all know the consequences of such a policy of exaggeration; inflation, ubiquity of controls, statism, decay of political liberty, and the end of all personal and private initiative."

For lack of space (and also a probability of an overdose of the available facts in one article), it is now left to the reader to reach a conclusion as to the dangers involved. If the possibilities suggested seem fantastic, reference is made again to the extent of the world subjugated by the Communists in just about 40 years.

I'm very sure, if it is realized fully by those responsible for this decision that posterity will look back askance at those who were originally responsible for the creation of a miscegenated nation, that some remedial action will be taken.

HOUSE OF REPRESENTATIVES

WEDNESDAY, JANUARY 15, 1958

The House met at 12 o'clock noon.

The Chaplain, Rev. Bernard Braskamp, D. D., offered the following prayer:

Psalms 27: 14: *Wait on the Lord: be of good courage, and He shall strengthen thine heart.*

Eternal and ever-blessed God, Thou art always speaking unto us through Thy Holy Word.

May we daily hear Thy voice calling and commanding us to commit our ways unto the Lord.

We rejoice that the words of the Holy Scriptures are a lamp unto our feet and a light unto our path.

Incline our hearts to heed those sacred words for he that followeth them shall not walk in darkness but shall have the light of life.

Give us such a love of Thy truth that we shall come to know the truth of Thy love.

In the name of the Christ, the Eternal Word, we offer our petitions. Amen.

The Journal of the proceedings of yesterday was read and approved.

THE LATE HONORABLE DUDLEY A. WHITE

Mr. BROWN of Ohio. Mr. Speaker, I ask unanimous consent to address the House.

The SPEAKER. Is there objection to the request of the gentleman from Ohio?

There was no objection.

Mr. BROWN of Ohio. Mr. Speaker, I have requested this time to advise the House of the death of one of its former distinguished Members, the Honorable Dudley A. White, of Sandusky, Ohio, who represented the 13th Ohio District in this body in the 75th and 76th Congresses.

Dudley White was a truly great American. He served his country as an enlisted man in the Navy during the First World War. Later, in World War II, he again joined the colors and became a captain in the Navy in charge of enlistments in the Navy. He also served as Ohio commander of the American Legion.

After leaving the House he was a candidate for United States Senator from Ohio. He was recognized as one of the outstanding newspaper publishers of modern times, having under his direction a number of important Ohio daily newspapers.

Mr. White indeed served his State and Nation ably and well. His death on October 14 of last year came as a shock and surprise to all of us. I am sure that the membership of the House joins me in extending our sincere sympathy to his very fine family. In his passing we have all lost a great and good friend, and Ohio and our beloved country has lost a true leader and a real patriot.

Mr. Speaker, I ask unanimous consent that following my remarks the statement of the gentleman from Ohio [Mr. BAUMHART], who is absent on official business, may be inserted in the RECORD.

Mr. BAUMHART. Mr. Speaker, the Honorable Dudley Allen White, Sr., an illustrious Member of the House of Representatives during the 75th and 76th Congresses, and my good friend, died on October 14, 1957, at the age of 56.

Dudley White served in this body, and represented the constituents of the 13th Ohio Congressional District, with sincerity and true legislative ability.

He was born in New London, Huron County, Ohio, January 3, 1901, attended the public schools and was graduated from the New London High School. His life was devoted to serving his country in time of conflict, to public office, and bringing to the people of Ohio good journalism.

During the First World War Dudley White served as an enlisted man in the United States Navy. In 1929 and 1930 he was State commander of the American Legion. He was Ohio's member of the national executive committee of the Legion in 1932. During World War II he was called to active duty in the United States Navy in 1942 as a lieutenant commander; he was promoted to captain and served as director of recruiting and induction until 1946. That year he was awarded the Legion of Merit for "exceptionally meritorious" service as director of recruiting and induction for the Navy during the war.

He entered the newspaper business at Norwalk, Ohio, in 1925, and became editor and general manager. He was associate publisher of the Reflector-Herald, in Norwalk, and vice president of Sandusky Newspapers, Inc., Sandusky. At the time of his death Dudley White was publisher of the Sandusky Register and the Norwalk Reflector-Herald.

His interest in and dedication to worthwhile endeavors read like a cross-section of American life. He was delegate to the Republican National Convention in 1928 and 1948, and was an alternate in 1932. For 5 years he served as a trustee of Bowling Green State University. He was president of a broadcasting company and a bank director. In 1953 he was appointed executive director of the Commission on Intergovernmental Relations. During President Eisenhower's first term, he served 18 months on the Hoover Commission.

No task was too big for Dudley White. He approached all problems with an enviable enthusiasm and unswerving zeal. He was known to his associates as a doer and a dedicated man.

Dudley White was not a candidate for reelection to the United States House of Representatives in 1940, but in that year was an unsuccessful candidate for the Republican nomination for the United States Senate. The man who defeated him is now a member of the Supreme Court, Associate Justice Harold H. Burton of Ohio.

Dudley White was a fervent patriot. He loved his country. He respected the Congress in our scheme of government. He was devoted to duty and a man I am proud to have called my friend. To Mrs. White, the daughter and son, I express deepest sympathy. He will long be remembered by those who were privileged to be associated with him.

Mr. HALLECK. Mr. Speaker, will the gentleman yield?

Mr. BROWN of Ohio. I yield to the gentleman from Indiana.

Mr. HALLECK. Mr. Speaker, during our service here in the House of Representatives we all make many, many friends. As a matter of fact, on occasion it seems to me that all of us are friends one to the other. From time to time we may have our differences on matters that come before us for consideration, but on the whole we are friends.

However, I am sure every one of us comes to know certain Members better than others. Certainly that was my experience with the late Dudley White. I never had a better friend in the House of Representatives. I do not know that I ever had a better friend anywhere at any time than Dudley White. He was one of the finest, most outstanding, and able Members of this House that I have known. In addition to his service here he demonstrated his ability in other

fields, as the gentleman from Ohio [Mr. BROWN] has so well said. With it all he was a gentle, kindly, generous sort of individual whom we could all love and respect. So, as far as I am concerned, his passing is a matter of great sadness to me. To his family I extend my deepest sympathy and wish them the best in the years to come.

Mr. BROWN of Ohio. Mr. Speaker, I yield to the gentleman from Ohio [Mr. JENKINS], the dean of our delegation.

Mr. JENKINS. Mr. Speaker, I wish to join with my colleague, the gentleman from Ohio [Mr. BROWN], in saying something nice about our friend, Dudley White. Just as the distinguished gentleman from Indiana has said, Dudley White was a sort of a many faceted individual; in other words, he was qualified and competent to do many things. He could adjust himself. He could do things that the average individual could not do, and eventually all those things resulted in his being a very popular and very useful man. To his family I extend my deepest sympathy.

Mr. BROWN of Ohio. Mr. Speaker, I yield to the gentleman from Illinois [Mr. ARENDS].

Mr. ARENDS. Mr. Speaker, I have many times said that one of the great privileges of serving in Congress is the friendships you make with those you serve with. It is natural that some of these friendships become more intimate than others. Dudley White was a warm, personal friend of mine. He was one of the finest and most stimulating men I have ever known. I loved to be in his company.

I can recall many experiences together. I had the privilege of visiting in his home and of knowing his family. I can now see his winning smile and still feel his vivaciousness.

I can even recall when I first met him. It was back in 1936 at the Republican Convention in Cleveland. He said to me at that time: "Before too long I will be in Congress with you." And so he came here and all of us who worked with him are richer by the association. We lost a great deal when he left Congress and returned to newspaper work. We lost an inspiring man and an able legislator.

Mr. Speaker, with the passing of Dudley A. White I have suffered a personal loss beyond words of mine to express. It was a distinct shock to me that such a fine and sincere man should be taken from us at such an early age. Perhaps that is selfishness on my part for we know he is in the peace and the richness of the heavenly world beyond. In that we, his friends, and his lovely family may be able to find some consolation.

Mr. BROWN of Ohio. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days in which to extend their remarks.

The SPEAKER. Is there objection to the request of the gentleman from Ohio?

There was no objection.

Mr. THOMAS. Mr. Speaker, it was a pleasure to have known our distinguished colleague, Dudley White, and his family all during his service here, and that friendship continued with them until his death.

Mr. White was an exceptional man in many, many ways. He had an enormous capacity for work. He was clear and accurate in his thinking. He had no inclination to espouse or go along with a cause that he did not believe in 100 percent.

His service in the Congress was outstanding. The years that he spent here were marked by hard work and devoted service to his district and country. He was very diligent in all his duties; attended all the sessions and took a keen interest in all Congressional activities.

To his family I want to offer my heartfelt sympathy and understanding in their great loss.

Mr. McGREGOR. Mr. Speaker, I would like to take this opportunity to join with my colleagues in commenting on the untimely passing of the late Dudley White, who so ably served the 13th District of Ohio in the 75th and 76th Congresses.

It was my privilege to only serve a portion of one session of Congress with Dudley White but I had known of his excellent record for many years. He was a past commander of the American Legion of Ohio and like many of us, was a World War I veteran.

He was highly respected, one who was devoted to his duties and was a great American and public official. I extend my sincere sympathy to his family.

THE LATE HONORABLE WILLIAM P. COLE, JR.

The SPEAKER. The Chair recognizes the gentleman from Maryland [Mr. FALLON].

Mr. FALLON. Mr. Speaker, with sadness and a poignant sense of personal loss, I announce to the House today the death of a distinguished Marylander, the late Honorable William P. Cole, Jr. This grand and noble gentleman, who was so full of life and who made friends easily and permanently, passed away after a prolonged illness, on September 22, 1957. Mrs. Fallon and I were deeply grieved. We loved him dearly.

Judge Cole, as he was known affectionately throughout the State of Maryland, was born in Towson, Baltimore County, on May 11, 1889. He attended the public schools there and was graduated from Towson High School in 1907.

He went on to Maryland Agricultural College, known now as the University of Maryland, and received a degree in civil engineering in 1910. Then he studied law at the University of Maryland in Baltimore. He was admitted to the bar in 1912, and commenced practice the same year.

Bill Cole was witty, he was intelligent, and he loved and understood his fellow man.

These traits of character stood him in good stead, and he got off to a good start as a young lawyer. But then, as in later years, responsibility to his country and to his fellow man came first. When America was drawn into the first of the great World Wars in 1917, Bill Cole knew what to do. In August of that year, he dropped his law practice to enter the training camp at Fort Myer, Va. He was commissioned a first lieutenant the following November and assigned to the 316th Infantry Regiment, 79th Division, at Camp Meade, Md.

He served overseas and was honorably discharged as a captain at Camp Dix, N. J., in June 1919. He then resumed the practice of law at Towson, Md.

Judge Cole was elected as a Democrat to the 70th Congress and took his seat in this Chamber on March 4, 1927, as a Representative from the Second Congressional District of Maryland. He was an unsuccessful candidate for reelection in 1928, and resumed the practice of law in his hometown of Towson. But in 1930, the people of his district sent him back to the House of Representatives. He served in this body with great distinction in the 72d Congress and five succeeding Congresses.

Judge Cole resigned from Congress on October 26, 1942, to accept a Presidential appointment to the United States Court of Claims in New York, where he served as a member for 10 years.

On July 10, 1952, President Truman appointed Judge Cole to the United States Court of Customs and Patent Appeals. I might mention in passing that the oath was administered by the late Chief Justice Fred M. Vinson, a longtime friend. The Chief Justice told Judge Cole that this was the second time he had administered a judicial oath to him—and never before had he administered the oath to the same person more than once.

It is impossible to speak of Judge Cole and his many contributions without mentioning his great love for the University of Maryland. Next to his family, the judge's first love was the university. He served as chairman of this great school's board of regents for many, many years. And the university, to which he was always willing to give of his time and talents, owes him a great debt of gratitude.

As chairman of the board of regents, he exercised this position with great responsibility and played a vital part in the growth of the university.

He had the foresight to see the future technical developments in this country, and was instrumental in influencing the university to stress a mathematics and science educational program over other phases of college life.

He was also instrumental in the selection of Dr. Wilson H. Elkins, of Texas, as the new president of the university.

Judge Cole's interest in the University of Maryland went beyond the purely intellectual side, however. He never missed a football game. Rain or shine, he could always be seen on the sidelines, rooting for victory. He was justly beloved by all the students.

Judge Cole also served as regent of the Smithsonian Institution from 1940–43.

Judge Cole was a true Marylander. True to his ideals, loyal to his country and fellow man, and dedicated to service, his memory will forever be enshrined in our hearts as one who measured up to the very highest traditions of our

State. In his passing, we in Maryland have lost a good man and the Nation an invaluable servant.

Mrs. Fallon and I shall always cherish the memory of Judge Cole. He was our dear and trusted friend and we shall miss the many delightful hours we spent together.

To Mrs. Cole, who is one of the dearest and finest ladies anyone could ever meet in the journey of life, and to his host of friends in Maryland, we extend our deepest sympathy upon the great loss they have sustained.

Mr. FRIEDEL. Mr. Speaker, will the gentleman yield?

Mr. FALLON. I yield to my colleague from Maryland.

Mr. FRIEDEL. Mr. Speaker, I wish to join in the remarks of my colleague the gentleman from Maryland [Mr. FALLON]. It is with profound sadness that I rise to pay my respects to the memory of our departed colleague, a truly great and good man, the late William Purington Cole, Jr.

On May 11, 1889, William P. Cole, Jr., was born to William Purington Cole and Ida Estelle Cole, in Towson, Md. He grew up in the beautiful county seat of Baltimore County, which was to be the scene of his later success in life. After graduating from the county schools, he entered the old Maryland Agricultural College, which is now the University of Maryland. Receiving his degree of bachelor of civil engineering in 1910, he then enrolled in the law school of the University of Maryland, and was admitted to the Maryland bar in 1912. It was in Towson where Bill Cole first opened his office for the general practice of his chosen profession. It did not take long for the people of his community to gage the keenness of mind and great intellect of this young lawyer, for he developed a very extensive law practice and became one of the leaders of the Baltimore County bar. On June 27, 1918, he married Edith Moore. They had one son, William P. Cole III.

The one thing that saddened his otherwise happy life was the tragic loss of his only son who was killed in action in Europe on September 11, 1944.

In December 1917, William P. Cole, Jr., was commissioned a first lieutenant with the 316th Infantry of the 79th Division of the United States Army. He served with such distinction during three very important battles in France that he was promoted to the rank of captain in February 1918.

Although they say the law is a jealous mistress, Bill Cole gave of his time, thought, and energy to matters of religious, philanthropic, and civic endeavors. Because of his outstanding qualifications as a lawyer and as a man imbued with deep civic consciousness, he was urged to employ his talents to represent the large Second Congressional District of Maryland in the House of Representatives, and was elected to the 70th Congress in 1927. He was reelected to Congress in 1931 and served with distinction in the 72d to the 77th Congresses from 1931 to 1943. Among the committees to which the late Bill Cole was appointed was the same committee of which I now have the honor of being a member, the Committee on Interstate and Foreign Commerce. I often refer to his outstanding contributions and work when he was a member of that committee during his long tenure in Congress. We also remember him as one of the outstanding Presiding Officers in this body, for he was called upon to preside as Speaker pro tempore on many occasions.

Those of us who have known him and worked with him over the years and have observed his demeanor, whether in proceedings before committees or on the floor of the House of Representatives, have been deeply impressed by his devotion to the public welfare. He was indeed a truly dedicated legislator.

Because of Bill Cole's lasting contributions and his outstanding legal ability, the President of the United States appointed him as judge of the United States Customs Court in October 1942, and later as judge of the United States Court of Customs and Patent Appeals, where he served with distinction until his untimely passing.

On the bench he displayed his brilliant talents dealing with the highly technical and intricate problems involved in customs and patent law. Gifted with a remarkably clear and keen legal mind, he could assimilate a mass of facts and resolve them in opinions which sparkled with lucid and clear reasoning. He was a credit to the bar of Baltimore County, of the State of Maryland, and of the United States. There have not been many like him.

The late Judge Cole, always actuated solely by lofty patriotism, was a genuine public servant. He might be described as an old-fashioned American gentleman who was willing to give his all for the State and Nation he served so well and which he loved so much. His memory will be engraved on our hearts and his life stands as an inspiration for us to emulate.

Mr. LANKFORD. Mr. Speaker, will the gentleman yield?

Mr. FALLON. I am delighted to yield to the gentleman from Maryland.

Mr. LANKFORD. Mr. Speaker, I wish to join my colleagues from Maryland and my other colleagues in the House in paying my respects to the memory of Judge Cole. While it was not my privilege to know Judge Cole personally, his reputation has been an inspiration to many, many people.

Mr. McCORMACK. Mr. Speaker, will the gentleman yield?

Mr. FALLON. I am delighted to yield to the distinguished majority leader.

Mr. McCORMACK. Mr. Speaker, once more are we struck by the now-familiar pain that attends the passing of a former colleague. The grief I felt at the news of the death of Judge William P. Cole, Jr., summoned to my mind a fuller perception of John Donne's profound words:

> Who bends not his ear to any bell which upon any occasion rings? but who can remove it from that bell which is passing a piece of himself out of this world?

The bell tolled for Judge Cole last September 21, and his death diminished us all.

William Purington Cole, Jr., was truly a remarkable and talented man whose abilities encompassed many fields. Some of us in this House remember him best as an industrious and able legislator and a conscientious Representative, for 14 years, of the Second Maryland District. We remember that fateful day in 1933 when our Speaker, who was then chairman of the Committee on Interstate and Foreign Commerce, appointed Mr. Cole to head a subcommittee to investigate the petroleum industry.

The Special Petroleum Committee emerged from this beginning and William Cole naturally succeeded to its chairmanship. For almost 9 years he directed the activities of that committee in an investigation into orderly production, conservation, prevention of waste, transportation, and other aspects of the petroleum industry. The Cole committee, as it came to be known, set an impressive standard for fair and efficient investigatory practices. Through the policies it helped establish in the industry, the committee made what was generally acknowledged to be a major contribution to the war effort, and Judge Cole and his colleagues received much well-deserved praise and acclaim.

We remember that proud day toward the end of the 76th Congress when our Speaker was necessarily absent and the House of Representatives elected William Cole Speaker pro tempore. And I recall the deep concern his colleagues felt when, shortly after his reelection in 1940, he became ill and this House by unanimous resolution authorized Speaker RAYBURN to administer the oath of office to Mr. Cole at the Baltimore Hospital. We remember that we felt both sad and happy on October 26, 1942, when Congressman Cole submitted his resignation—sad to see him leave his position as dean of the Maryland delegation, happy for him at his appointment as judge of the United States Customs Court in New York City.

He had already displayed some of his versatility before his election to these Halls in 1926. Born in Towson, Md., May 11, 1889, he graduated from Towson High School in 1907 and from Maryland Agricultural College in 1910. After 2 years study at the law school he was admitted to the State bar and began practice. In 1917 he closed his office and joined the Army. His service with the 316th Infantry Regiment of the 79th Division included 11 months overseas duty and participation in 3 major engagements.

He returned to Towson a captain, and with a disability of the lungs that caused him difficulty for the rest of his life. Having reopened his law practice, his broad legal knowledge soon brought him renown as an attorney and his community elected him to Congress to succeed the Honorable Millard E. Tydings.

In 1942 his abilities and energies were still not exhausted. He served with such distinction as a judge of the Customs Court in New York that in 1952 President Truman appointed him to the United States Court of Customs and Patent Appeals in Washington, the position he held when he passed away.

Judge Cole was a devoted son of his alma mater, the University of Maryland.

For 26 years he was a member of the university's board of regents and for 12 years its chairman. In the opinion of Dr. Wilson H. Elkins, president of the university, "Judge Cole contributed more to the welfare of the university than any other person." In 1956 the William P. Cole, Jr., Student Activities Building was dedicated in his honor at the College Park campus.

In a life sunlit with public service, one great personal and tragic cloud marred his life. In 1944 his only son, William P. Cole III, was killed in action in France.

Lawyer, soldier, legislator, jurist, university regent—his resources seemed limitless. But what we will never forget are those personal qualities that so endeared him to us—his unfailing courtesy and patience, his tolerance of the opinions of others, his kindness and good humor. Nor will we ever forget that, as the Baltimore Sun wrote of him, he was "not a man who sought to gain his ends by bluster," but "beneath that bland exterior was a determined will which scorned retreat so long as he felt he was right."

We can only console his widow and ourselves with the thought that Judge Cole has accepted the judgment of the Proverbs: "Thou shalt lie down, and thy sleep shall be sweet."

Mr. FALLON. Mr. Speaker, I ask unanimous consent that all Members who wish to do so may extend their remarks at this point in the RECORD on the life and services of the late William P. Cole.

The SPEAKER. Is there objection to the request of the gentleman from Maryland?

There was no objection.

Mr. RAYBURN. Mr. Speaker, in the passing of William P. Cole I have lost one of the closest friends I ever had in this House. He was a man of character, great ability, and all his life he served well. He was a gentleman of the highest type, loyal and devoted. His life was a great one.

To his widow, Edith, and other loved ones I extend my deepest sympathy.

Mr. GARMATZ. Mr. Speaker, it is a high privilege to be able to join in paying tribute to our former colleague in the House, who so ably represented the Second Congressional District of Maryland for 7 years, William P. Cole, Jr. His resignation from Congress to accept the appointment of judge of the United States Customs Court, while a gain for that branch of the Government, was a decided loss for the legislative branch and the State of Maryland.

During his entire career, as an officer in World War I, a member of the bar, chairman of the board of regents of the University of Maryland, a Member of Congress, and as a judge in the Customs Court, he served with honor and distinction and brought great credit to the State of Maryland.

While it was not my privilege to serve with him in the House, I have known him for many years and have always held him in the highest esteem. His death last September left a vacancy difficult to fill. The people of the State of Maryland and the Nation, have lost a dedicated and devoted public servant.

Mr. LANKFORD. Mr. Speaker, I would like to take this opportunity to join my colleagues in expressing my sincere regrets in the untimely passing of late Associate Judge William P. Cole, Jr.

Judge Cole was one of Maryland's most distinguished sons and the loss of his dedicated services to both the State of Maryland and the Nation will be deeply felt. Judge Cole served as a Member of this body for a period of 14 years, which period included the most difficult days this Nation had ever experienced. This period of service was followed by his appointment to the Court of Customs and Patent Appeals in which position he was serving with distinction at the time of his death. His guiding hand was evident during the term in which he served as a regent of the Smithsonian Institution and as chairman of the University of Maryland board of regents.

The example of dedicated public service set by Judge Cole will always serve as an inspiration to those who endeavor to follow in his footsteps.

COMMITTEE ON POLITICAL EDUCATION OF THE CIO

Mr. RHODES of Arizona. Mr. Speaker, I ask unanimous consent to extend my remarks at this point in the RECORD.

The SPEAKER. Is there objection to the request of the gentleman from Arizona?

There was no objection.

Mr. RHODES of Arizona. Mr. Speaker, the other day COPE, committee on political education of the CIO, issued another in its long series of phony statements. It accuses the Honorable LESLIE ARENDS, the Republican whip, of a misstatement in blaming the Truman administration for failure to make progress in the missiles field. COPE beats the chest of former President Truman and takes credit for him for enactment of the National Science Foundation Act. The bulletin further states that this act had "among other objectives to undertake military research for national defense, including the development of missiles."

The quotation is true but the implication created is as phony as it can be. The facts are that Commander in Chief Truman never gave orders for the National Science Foundation to enter the missile field. In fact, a member of my staff was told this very morning by officials of the National Science Foundation that said Foundation has not and is not engaged in the missile field, neither then nor now.

In taking credit for Mr. Truman, COPE forgets to mention that President Eisenhower, when Chief of Staff of the Army, asked Congress and the administration to provide funds for development of missiles in the year 1946. It also forgets that only $1 million was spent on missiles prior to the time President Eisenhower took the oath of office.

The lameness of the COPE bulletin indicates the desperation of the politicians who are trying to blame the missile lag on the Republican administration.

JOINT COMMITTEE ON ATOMIC ENERGY

The SPEAKER. Pursuant to the provisions of title 42, section 2251, United States Code, the Chair appoints as a member of the Joint Committee on Atomic Energy the gentleman from California [Mr. HOSMER] to fill the existing vacancy thereon.

THE USE OF ATOMIC ENERGY FOR ELECTRIC POWER

Mr. HOSMER. Mr. Speaker, I ask unanimous consent to extend my remarks at this point in the RECORD and include tables and extraneous matter.

The SPEAKER. Is there objection to the request of the gentleman from California?

There was no objection.

Mr. HOSMER. Mr. Speaker, my interest in atomic energy began in 1945 when I entered the A-bombed city of Hiroshima with our first occupation forces. Since that time I have tried to learn its technology and developments as a layman. It was while I worked for the Atomic Energy Commission at its Los Alamos, N. Mex., laboratories 10 years ago that I conceived an ambition to become a member of the Joint Committee on Atomic Energy. That ambition has been satisfied today by my election to membership on that committee. I am tremendously grateful to my colleagues for granting me this high honor, and I will earnestly seek to justify the confidence they have expressed.

It seems an appropriate occasion to present this stocktaking, as of the end of 1957, of the use of atomic energy for electric power. This is the third such review I have presented, the two previous being as of the end of 1953 and the end of 1955. They will be found in the CONGRESSIONAL RECORDS for 1954 and 1956. This will be my last such review for two reasons: First, the publishers of private periodicals in the United States are so expanding their coverage in this field that by another 2 years an effort such as this to collect the bits and pieces of information into a comprehensive picture will be unnecessary. Second, having attained membership on the Joint Committee with its opportunities for classified information, it would undoubtedly be difficult for me to write another such review without running into information classification problems.

On December 2, 1942, just a few weeks over 15 years ago, the first chain reaction of nuclear fission was accomplished in a pile at the University of Chicago. One subsequent line of development has already brought extremely fast reactions of explosive force equivalent first to thousands of tons of TNT, and now, by fusion reaction principles, equivalent to millions of tons of TNT. A second line of development has led to the regulated release of energy to power ships at sea and electric generation stations on land.

Although it may be premature to report it as a certainty, the year 1957 may be marked as the first in which a controllable fusion reaction was brought about under laboratory conditions. It is clear that nuclear power in some guise in the

years ahead will carry an increasing share of total power generation, and probably in time will open the path to space travel to a degree which chemical fuels would find most difficult to duplicate.

The great rewards of nuclear energy are not coming easily and automatically. They have been expensive and give every indication of requiring major adjustments in our allocations of material and human resources. Our very survival as a civilization is going to depend upon the most skillful use of our military potential, our ability to work with friendly nations for common aims to better life on this planet, and the operation of our economy to keep output going up with a proper apportionment of that output. The mastery and development of nuclear energy will make an important contribution to these broad goals.

I have made this review worldwide in scope because so much of current policy is shaped by the political, economic, and technical consequences of nuclear developments everywhere. In presenting it to you I wish to acknowledge and express my appreciation to Dr. Charles S. Sheldon II of the Library of Congress and his staff for their long efforts in collecting and assembling much of the material included.

In presenting it, I would also like to say that the United States in the coming year will have to wrestle with a number of issues connected with nuclear energy. For example, what are the advantages and what are the dangers of sharing nuclear information among friendly countries? How fast should nuclear power development be pushed? Over how many projects should available personnel and production facilities be spread? What should be the relative roles of private and public enterprise in a new and expensive field of endeavor which is expected after a developmental period to assume a normal place in the economy? What steps will be required to keep our work in basic science moving fast enough to stay ahead of rapidly appearing technological needs? How will priorities be set for allocation of scarce resources needed to meet many demanding national programs, and will the costs be met through cutbacks in other programs, through heavier taxes, or through inflation?

Although it has yet to be discussed only guardedly, there is, I believe another additional and very basic question we should quickly decide: Should we at once embark on a crash research and development program aimed at controlled nuclear fusion within the shortest possible time?

It would be hard to imagine problems of greater significance. What is increasingly clear is that many of them require a technological training and understanding on the part of policymakers which is rare. Therefore, a burden is put on those with this specialized training to translate their knowledge into forms which are meaningful both to the policymakers and to the lay public. In the end, public understanding and support will be necessary to real accomplishment even if informed leadership is exercised by a few.

UNITED STATES CIVIL NUCLEAR POWER REACTOR DEVELOPMENTS—EARLIER POWER REACTORS

The first atomic pile of 1942 demonstrated that a controllable, sustained chain reaction was possible, and that some heat was generated in the process. The significance of this knowledge was not lost upon the experimenters, but the priorities of the period required emphasis upon developing weapons, and developing low-heat reactors which could convert as much uranium 238 into plutonium as possible for the weapons program.

After the war, relatively economical, small-scale experiments were carried on with a variety of reactor concepts, but the science was at such an early stage of development that many gaps in information had to be filled before any serious power program could be undertaken. The first real push was given the pressurized water concept, using highly enriched uranium. Under tight security wraps this work was pursued until an actual submarine prototype, the S1W, was operating in the Idaho desert, by 1953. That program was backstopped by another submarine reactor, one using liquid sodium as a coolant. The prototype intermediate reactor, known as S1G at West Milton, N. Y., was completed in 1955, and for a period supplied electric power to the Niagara Mohawk Power Corp., until it ceased operation on March 21, 1957. A later part of this report will describe what has happened since, in the military reactor field.

During this early period the Atomic Energy Commission made available some restricted data information to firms and institutes with access permits to carry on a series of design studies which paved the way later to the demonstration programs still under way today. The Commission in its own laboratories did some small-scale testing of a number of reactor concepts in addition to those required for the submarine program. At Los Alamos, a liquid metal fuel reactor, Clementine, was completed in 1946, was dismantled in 1953, but it was not intended to generate electricity. Similarly, that laboratory built in 1956, dismantled in 1957, a reactor called LAPRE–1. This was of the aqueous homogeneous type, producing no power.

Another family of reactors are of the boiling water variety, built by the Argonne National Laboratory at the National Reactor Test Station in Idaho. Borax I of 1953 to 1954 produced no power, was followed by Borax II of 1954 to 1955 which did. Borax III of 1955 to 1956 for a short time in 1955 fed 2,000 kilowatts of electricity to the town of Arco, Idaho. Argonne also built in Idaho the EBR–1 of the fast breeder type. It was started up in 1951, and following an accident in 1955 is still being rebuilt.

At Oak Ridge, development began with an aqueous homogeneous reactor, the HRE–1, started up in 1952, and dismantled in 1954. Though a promising design it has had serious corrosion problems to overcome.

POWER REACTORS COMPLETED AND STILL OPERATING

The latest of the Borax series is number 4, completed in 1956, and still operating in Idaho. It is the only civilian reactor currently able to generate electric power completed prior to 1957. But this year saw five new reactors completed able to produce electricity. Three are part of the 5-year experimental program, one is a military prototype of civil interest, and one is a purely private venture.

The EBWR, boiling water reactor, an outgrowth of the Borax studies, went critical at Lemont, Ill., in December 1956, and by February 9, 1957, settled down to regular operation with an electrical output of 5,000 kilowatts.

Although it is a military reactor, the APPR–1, package power reactor, at Fort Belvoir, Va., is of civilian interest for the experience it will bring in building small reactors. It went critical in April 1957, turning out electricity, too. Further details are discussed under military programs.

The SRE, sodium reactor experiment, at Santa Susana, Calif., also went critical in April 1957, and reached regular operation on November 14, 1957. It serves as the prototype of a much larger plant to be built in Nebraska.

The Vallecitos, Calif., boiling water reactor, a private venture of the General Electric Co., began regular operation on October 24, 1957, supplying electricity to the Pacific Gas & Electric Co. This plant is intended to test the plans for the large Dresden, Ill., power station.

The PWR, pressurized water reactor, at Shippingport, Pa., went critical in December 1957 and before long should be operating at the initial capacity level of 60,000 kilowatts. This, a part of the experimental program, is our first full-scale powerplant, and is claimed to be the first such intended primarily to produce power anywhere in the world. Calder Hall in England turns out a similar amount of power, has been operating at capacity since 1956, but is a plutonium producer as well.

POWER REACTORS UNDER CONSTRUCTION

The EBR–1, experimental breeder reactor, has been mentioned already. During tests, a certain instability in operations was noted, and it was decided to cut off coolant flow deliberately to measure what would happen. Personnel were kept at a safe distance. A 2-second delay in moving control rods during this experiment brought a surge of power which scattered radioactivity within the building alone. Work is still under way in rebuilding the reactor, many valuable lessons having been learned.

The HRE–2, aqueous homogeneous reactor, at Oak Ridge, is under construction and should be in operation shortly. It offers the hope of continuous operation with a recycling of its fuel; and if experiments are successful, it will be followed by full-scale plants later. The highly corrosive liquid fuel is proving hard to handle.

Three other reactors are under construction which will not themselves produce electricity with their heat output. The OMRE, organic moderated reactor, building at the National Reactor Test Station by North American Aviation, will study the advantages of using diphenal as a heat transfer agent and moderator. It should be completed

soon. Los Alamos is finishing two more small reactors. The LAPRE–2, aqueous homogeneous reactor, should be ready very soon, and perhaps later in 1958, the LAMPRE–1, molten plutonium reactor, will be completed. This may prove a useful step toward efficient use of plutonium fuel, presently not successfully used outside the weapons program.

The fast breeder reactor at Lagoona Beach, Mich., is the first large station being built under the power-demonstration program. This is the project spearheaded by the Detroit Edison Co., and shows great promise for eventual economy by producing more fuel for resale than it burns. Construction started early in 1957, and the outer protective shell was completed in October 1957. Completion of the whole station is scheduled for 1960. This has been a controversial project. Probably mindful of the accident with the EBR–1, although that was part of a deliberate test, three labor unions have called the reactor design inherently unsafe. This is disputed by Atomic Energy Commission scientists. A conditional permit for the construction was granted, pending final proof that all remaining safety questions be cleared up before the final certificate is issued for actual operation. The controversy had not been finally resolved by the end of the year, but work continues.

The pressurized water reactor at Indian Point, N. Y., for the Consolidated Edison Co. was begun in March 1957. To be completed in 1960, this plant will produce about half its power from nuclear heat, the rest by oil superheating of steam. Babcock & Wilcox is the builder.

The boiling-water reactor at Dresden, Ill., for the Commonwealth Edison Co. broke ground in March 1957 and was under actual construction by June 1957. It is also to be ready by 1960, and will be patterned after the Vallecitos plant also built by General Electric.

POWER REACTORS UNDER PROGRAM OR OTHERWISE PROPOSED

The Atomic Energy Commission has still more reactor concepts to try out as a result of research. Longest planned is the EBR–2, breeder reactor to be completed by 1959. It will take into account experience gained with its predecessor.

Still at early stages of planning is the LMFRE, liquid metal fuel reactor, as proposed by the Babcock & Wilcox Co. to the Brookhaven Laboratory.

The Arbor reactor to be built in Idaho is intended to be a flexible experimental type of boiling-water facility for testing out a series of ideas for improvements.

The PURR is contemplated as an experimental plutonium recycling reactor to be built at Hanford by the General Electric Co., but is not intended to produce electricity in its first version.

LAMPRE–3 may follow the other LAMPRE experiments to turn out 15,000 kilowatts from a molten plutonium reactor.

The Dow Chemical Co. would like to build at Midland, Mich., a liquid metal reactor to be completed in 1962 which would turn out 10,000 kilowatts of heat.

These various experimental reactors hold the ultimate fate of the nuclear-energy industry in the United States if more economic types are to be found which will be fully competitive. But their performance is obscure and inconclusive as far as the lay public is concerned. Public attention is more likely to focus on full-scale plants which produce consistent amounts of power for everyday use. Under the demonstration program which will test out various reactor concepts in partnership between the Atomic Energy Commission and private concerns are about 4 to 6 projects. These are at different stages of negotiation, and a simple count is difficult to present.

Fully approved for initial construction is the pressurized water reactor at Rowe, Mass., to be built for the Yankee Atomic Electric Co. by Westinghouse. It is to be ready by 1960.

Also approved is the sodium graphite reactor at Beatrice, Nebr., to be built for Consumers Public Power by North American Aviation. Now that the prototype is operating at Santa Susana, this larger plant should be put under construction in 1958 for completion in 1961.

A sodium-heavy water reactor at Anchorage, Alaska, has been accepted for negotiation by the Atomic Energy Commission. It is to be built for the Chugach Electric Association by the Nuclear Development Corp. As a novel type, plans are not yet complete.

An organic moderated reactor for the city of Piqua, Ohio, has also been accepted for negotiation by the Commission. Although the hope was to complete it by 1960, it may have to wait upon successful tests with the OMRE reactor, also being built by North American Aviation, at the National Reactor Test Station.

Of the 4 projects described above, the first 2 were offered in the Atomic Energy Commission's first round of demonstration powerplants, and the next 2 are from the second round. Among the first round original offers, were some plans found not acceptable, and the Dresden plant whose promoters later decided that freedom from complete Commission control was worth the lack of Government financial help. The second round has also had casualties—5 out of 7, as will be discussed later. A third round was called for, and the plans submitted so far have not gone through the complete assessment prior to contract signing. The three proposals received so far were all known earlier as tentative private plans.

The Florida Nuclear Power Group applied on April 30, 1957, to build with Commission assistance in west central Florida a natural uranium fueled, gas cooled reactor of 136,000 kilowatts, akin to the British Calder Hall type. Completion is hoped for in 1962 if the group maintains its interest.

The Central Utilities Atomic Power Association, headed by Northern States Power applied on May 15, 1957, to build a boiling water reactor to generate 66,000 kilowatts of electricity. This is also to be completed by 1962.

A late recruit to the third round was the Pennsylvania Power & Light which has long studied building an aqueous homogeneous reactor. It applied in December 1957 to build a 150,000-kilowatt station. However, work has proceeded so slowly on the HRE reactors at Oak Ridge that the current plan is to ask for funds to make a 2-year study only, with Westinghouse, and then at the end of 1959 to decide whether also to ask for funds to begin actual construction.

Outside the formal Commission programs, under private discussion are several other reactor plans, tentatively for completion before 1965, but difficult to tabulate as very certain because not enough is known about them.

The West Penn Group, headed by the American Gas & Electric Service Corp. would like to build in the Ohio valley a small plant by 1962, followed by a very large plant 3 years later.

The New England Electric System wants to build by 1964 a large plant somewhere in New England.

The Carolinas-Virginia Nuclear Power Association wants Westinghouse to build by 1962 somewhere in the Southeast a heavy water moderated plant of modest size.

The Pacific Gas & Electric Co. is considering rival plans from General Electric and Westinghouse for a water moderated plant to be built in California.

The Northwest Power Group has acquired land near Hanford, Wash., for the possible construction of a gas cooled, natural uranium fueled plant.

The Philadelphia Electric Co. considered having a big fast-breeder plant built, but has made no recent announcement about it.

The Middle South Utilities has called for proposals but has not yet announced its plans for construction.

Isotope Products, Inc., of Buffalo wants to have the General Nuclear Engineering Corp. build a plant to manufacture cobalt 60 and byproduct steam for a pulp and paper mill.

The city of Pasadena in 1956 made inquiry about construction of a forty- to sixty-thousand kilowatt electric plant, but the study appears to have been very preliminary.

The Atomic Energy Commission-Puerto Rico Water Resources Authority have a joint plan for a reactor to produce 15,000 to 20,000 kilowatts of electricity.

The Southwest Atomic Energy Associates have a study program which may lead later to construction of one or more plants in the 200,000- to 400,000-kilowatt range.

The east central nuclear group plans a test reactor for completion in 1962, but it does not include electric power generating facilities.

The discussion above makes it amply clear that no simple count can be made of the size of the United States program for nuclear energy. For it is in the nature of free enterprise for decisionmaking to be dispersed, not centralized. Some of the plans described above wait on availability of Federal aid; others are concerned with questions of rising costs, and availability of capital funds. Still others await the outcome of basic and applied research activities which can only be hurried to a point. There is not

yet any national will to build a program of set dimensions, as will be discussed below. In fairness to the United States beset with uncertainties, it should be pointed out that some of the large foreign programs on both sides of the Iron Curtain will not necessarily be completed on schedule, although there is less division of opinion in those countries over the usefulness of nuclear energy to them in the near future because of their much higher than United States costs for conventionally generated electricity.

THE COST PROBLEM

Two opposing forces are at work to influence the ultimate cost of nuclear power. On the one hand, new discoveries and more experience with known techniques, thereby allowing safe step-up of temperatures and pressures, are providing opportunities to extract more power from given investments, and hence to cut costs. The contrary pressure is compounded of inflation in the construction industry and the appearance of previously unforeseen problems in the practical construction of reactors, problems whose solutions are very expensive.

During the past year or two, British operating experience in particular has led them to raise to about twofold the amount of power they expect to generate from the power stations they now have under construction. But 1956 and 1957 in particular were sobering years in the United States as far as costs are concerned. These problems were foreshadowed in the annual review of the Joint Atomic Committee in February 1957, and were made fully explicit in the meeting of the Atomic Industrial Forum in November.

The work on the Shippingport reactor showed that such a pioneering effort puts a great strain on the manufacturers of components to attain the close tolerances and high qualities required. Frequent remanufacture contributed heavily to the rising costs of that project. The need for more basic research in metallurgy and in many other fields has become quite apparent from this project and from the smaller experimental reactors.

By last autumn, it was clear that the state of the industry was perilous enough that a number of equipment manufacturers were dropping out, and some others are reducing the size of their staffs of physicists and engineers. The power stations under construction with little exception found their costs well up. For example, the Indian Point plant in New York had its costs estimated originally at $55 million, and now the figure is $90 million. Shippingport with its research costs was to have been an $85 million project, but now the total will be near $110 million.

Although cost projections are difficult to make in a new field, some general guides are available. One of the best, definitive statements on the expected costs of nuclear power was presented in March 1957 by W. Kenneth Davis and Louis H. Roddis, Jr., of the Atomic Energy Commission. They showed that roseate estimates of 4 or 5 mill nuclear power, commonly advanced 2 or 3 years earlier, were unlikely for many years. Their estimates were that nuclear power from our first experimental plants had cost and would cost between 20 and 50 mills per kilowatt hour. After initial shakedown, the so-called first generation plants, as scheduled for completion between 1960 and 1964, should have costs in the range of 10 to 13 mills, not very competitive with the costs of conventional thermal plants where costs run from 4½ to 9 mills depending upon location in relation to fuel. Second generation plants to be completed from 1965 to 1967 after shakedown might operate with costs of 9 to 11 mills, with some further savings in the future as experience improved.

REACTOR PLANS DROPPED

Cost problems have been a factor in the abandonment of reactor plans, although not the only factor. Some of the reactor plans listed below, it may be argued, are merely being held in abeyance, but to all intents and purposes they are canceled unless conditions change very radically.

Sometime about 2 or 3 years ago, the Commission stopped talking about a reactor to be called the HTR, to have been the followup to the HRE–2 homogeneous reactor, but using thorium in place of uranium in the fuel mixture. Probably too much work remains to be done on the first two reactors of this type, to make scheduling of the HTR significant.

Next to be written off were 3 of the 7 proposals of round 2 of the demonstration program. This occurred on January 2, 1957. One of these was an application from the University of Florida. Their proposed plant with an output of only 500 kilowatts was deemed too small to fit the requirements of the program. The city of Holyoke wanted to build a 15,000 electric kilowatt plant with a closed cycle gas turbine system, but this was rejected on the grounds that technical feasibility was not sufficiently established. The city of Orlando wanted to build a twenty-five to forty thousand electric kilowatt station using liquid metal, but this had to be turned down on similar grounds as untried.

The next blow came during negotiations for the building of the Hersey, Mich., plant of the Wolverine Electric Cooperative. Unfortunately, the earlier cost estimate of Foster-Wheeler almost tripled for the 10,000-kilowatt plant. On October 3, the Commission announced that it was suspending negotiations for the construction of this homogeneous reactor, as it was reluctant to accept a proposal for construction on a cost-plus basis, and the latest cost estimate was too high for the power to be obtained.

A few days later, the same fate befell the boiling water plant of the Rural Cooperative Power Association of Elk River, Minn. Agreement on a suitable ceiling price could not be reached with AMF Atomics for the 22,000-kilowatt plant. The rejection took the form of an open invitation to the entire atomic construction industry to come up with a new proposal for building. There has been no enthusiasm shown for volunteering.

Other proposals have been made in the past for nuclear powerplants which have come to naught, but they were too tentative to describe as firm plans now discarded.

ROLES OF GOVERNMENT AND PRIVATE ENTERPRISE

Considerable Congressional interest has centered the last 2 years on the size and speed of the United States program to develop nuclear energy. Recognizing that there is little cost incentive for private utilities to build nuclear powerplants today has led to several alternate policy recommendations as an answer. Adm. Lewis L. Strauss, Chairman of the Atomic Energy Commission, has argued strongly against a kilowatt race, which the United States could win if it saw any real necessity to do so. His emphasis would be upon continued testing to find the most economical reactor forms which ultimately could be competitive with cheap fossil fuels in the United States. Kenneth Davis, the Chief of the Reactor Division of the Commission, toward the end of the year suggested that if the United States wants to achieve lower operating costs at a fairly early date, it should concentrate its research and construction efforts on reactors of the water types—boiling and pressurized.

Several influential Members of Congress have argued that the presently conceived power-demonstration program of partnership with private industry is not boldly enough conceived to bring nuclear power very soon. Some are also concerned that public money is likely to be spent for private advantage, that these pioneering companies will achieve too strongly entrenched a position as a result of Government assistance. Those who so argue, however, have not satisfactorily demonstrated an economic need for nuclear power which exceeds conventional power in cost, nor shown how at any stage of development any but strong and financially resourceful private companies could engage in nuclear power projects. These arguments illustrate that the old struggle between private utilities and public power inevitably has become involved in the question of who is to develop nuclear power.

One of the more emotional arguments which has been raised is that unless the United States develops full-scale powerplants rapidly, international markets for reactor sales will be taken over by British, West German, and other builders. A related argument is that unless the United States develops reactors which can be fueled with natural uranium, reactor sales abroad will be lost. This has more substance. The United States has available enriched uranium from its gaseous diffusion plants, which it is willing to make available to friendly countries under conditions which will minimize the risk that this, or the irradiated fuel elements of partly converted plutonium, would be diverted to weapons. Many foreign governments are reluctant to have any major power program de-

pendent upon the whim of United States policy for future deliveries of fuel, and do not want our inspectors in their plants. Again, however, whether or not an overseas market for United States reactors would be worth the cost of developing it is problematical. Since the launching of the sputniks, the argument also has been made that the United States cannot afford to delay building many full-scale plants if the Russians and others are doing so, lest our international standing deteriorate psychologically in the uncommitted countries, and even among our allies. Unless there are not alternative means to avoid such consequences, however, the argument is not conclusive. As a matter of fact, the presenting of the argument in and of itself may have a greater deteriorating effect than any of its merits.

Although the United States has had the most advanced program for the development of enriched-uranium power reactors, and although the United States has been promoting the advantages of such systems to its foreign friends, expression in or by Congress that the British natural uranium system might be a better approach tends to undercut our leadership position.

Regardless of the merits of the arguments on enriched versus natural uranium, the fact remains that AEC and American industry have built up an unsurpassed competence in enriched-reactor technology. At the moment, to be brutally realistic, and right or wrong, this is all we have to sell to other nations. And we have been selling it successfully.

In 1956, legislation to launch a Government program of reactor construction failed of passage. However, it probably influenced a policy pronouncement of the Commission early in 1957 that unless a satisfactory private response were made to its third-round invitation, it would reconsider the earlier decision not to press for undertaking its own construction.

The 1957 legislative result of a year of discussion and debate was the passage of a bill which directed the Commission to do two things it was not particularly anxious to do, but the order was softened in its final form. Funds were made available for the construction of a large gas-cooled, natural-uranium plant of the type favored in Britain, and which appeals to some other countries. The plant is to be built at the National Reactor Test Station, but the Commission first is to report back in 1958 with its design studies before any construction starts. Also, funds were provided for a plutonium reactor to be built at Hanford, although the Commission claimed it could not yet use such a reactor at the present stage of research. However, in October, Louis H. Roddis, Jr., of the Commission stated that the MTR, materials testing reactor, at the National Reactor Test Station would soon be the first large reactor fueled with plutonium. This would be a most important development, as plutonium, a most difficult material to use, will be produced in some degree by most of the power reactors of the world and until now could only be used in the weapons program.

The partnership principle also was modified by the 1957 legislation. The public power cooperatives instead of negotiating directly with the constructors, have been replaced by the Commission in such negotiations as may be required. Only later will any reactors built under these conditions be turned over to ownership by the cooperatives.

SPECIAL PROBLEMS OF DEVELOPING NUCLEAR POWER

One major hurdle with respect to nuclear power was overcome in 1957. This was Government insurance against major catastrophe in reactor operation beyond the ability of any private insurance consortium to cover. Reactors for regular power production are designed with inherent safeguards, and the accidents which have been occasional in experimental work are supposedly impossible with the regular plants. Admiral Strauss has stated that a major disaster has only about 1 chance in 50 million of occurring with such a plant. Nonetheless, private underwriters recognized that if that one chance came, the damage from scattered fallout of radioactive material could run losses into the hundreds of millions. Unless private plant owners could find adequate insurance coverage, they would be blocked from construction of stations. The legislation finally passed provided that power station owners would have to purchase commercial insurance to the available limits, about $65 million, and then for losses up to $500 million would be covered by Federal protection.

The safety problem found specific form during the year in the arguments over the licensing of the Lagoona Beach plant, which already has been discussed.

Another problem of concern during the recent past, and actually one which has been longer in the making has been the shortage of trained personnel experienced to carry on the work of research and development of nuclear energy. This, in effect, sets a limit to how fast such programs can be expanded, and a worry of the Commission has been that it would be asked to encourage spreading too thin the available talent. The present session of the Congress probably will include further development of the plans for expanding the supply of scientific and engineering personnel. In so doing full recognition must be given to Rear Adm. H. J. Rickover's words when he testified last year before the Joint Committee on Atomic Energy regarding the hiring of people to work on naval reactors. He said: "I found there were very few people who were qualified for our work. By 'qualified' I do not mean, necessarily, their technical ability, but the desire to work long hours and to be dedicated to a job as well."

Also of concern is the extent to which the United States should share technical information with other countries. On the one hand, it is argued that secrecy has held back progress and brought duplication of effort, that the Russians already know much of what we withhold from our allies and even from our own people. The counterarguments show a concern that some reactor information still has important implications for the weapons program and should not be disclosed. While one purpose of greater exchange should be that the United States would have the benefit of foreign ideas, these critics fear the flow would be one way, out of the United States. The problem is complicated by the appearance of proprietary information of private companies and the seeking of commercial advantage by many countries in making reactor sales. Other aspects of the security problem are more frankly military and outside the scope of this report. A solution of the nonmilitary aspects of the problem will probably be approached from the standpoint of making a distinction between technology and design. In general, technology could be better shared without danger to the national interest than details of design.

Another development of interest during the year has been the temporary glut of the uranium production market. Intensive prospecting is required if uranium supplies are to keep pace with ultimate needs. It is estimated that although uranium in the world should outlast coal for generating power, the United States has only a 10-year supply now located. Even this, of course, is a great improvement over earlier years when the greater part of all uranium had to be imported from the Shinkolobwe mine in the Belgian Congo and from Canada. At the same time that future needs are recognized, and the Commission has carried through a program to expand mill capacity, now the point of temporary glut has been reached. No new contracts for foreign purchase are being negotiated, and domestic incentives have been reduced.

Steps are being taken to increase the supplies of heavy water to encourage economical powerplants moderated with that material. The United States has been selling heavy water for only $28 a pound to stimulate research, but true costs, which are much higher, will have to be cut markedly before large scale use can be considered. The hope is to cut these costs by about three-quarters through hydrogen distillation at very low temperatures instead of water distillation, the better known method. A new plant for the purpose is building at Boulder, Colo., under the cognizance of the National Bureau of Standards.

Past experience makes clear that future years will continue to present us with fresh problems to be overcome before nuclear power replaces conventional power on any large scale. One of these problems predictably is that of disposal of radioactive wastes, in itself a good reason to stimulate research on thermonuclear power which will be discussed in detail later in this report.

Table I summarizes United States civil power reactors which have been built, planned, or projected.

TABLE I.—*United States civilian power reactor program (including all reactors with an electrical output)*

Reactor concept name	Location	Scheduled completion date	Moderator	Coolant	Fuel	Heat output	Electrical output
(A) Reactor experiments							
Boiling reactor experiment No. 3—Borax-3	NRTS, Idaho	1955	Water	Water	15 kilograms of 90 percent U-235	15,000	3,400
Boiling reactor experiment No. 4—Borax-4	do	1956	do	do	Highly enriched U-235		2,400
Experimental breeder reactor No. 1—EBR-1	do	1951	None	Sodium potassium.	48 kilograms of 90 percent U-235 in U-238 blanket.	1,400	200
Experimental breeder reactor No. 2—EBR-2	do	1959	do	Sodium	150 kilograms of 45 percent U-235 or 90 kilograms of 24 percent Pu in U-238 blanket.	62,500	20,000
Homogeneous reactor experiment No. 1—HRE-1.	Oak Ridge, Tenn.	1952	Water	Fuel solution of uranyl sulfate.	3 kilograms of 90 percent U-235	1,000	140
Homogeneous reactor experiment No. 2—HRE-2.	do	1957	Heavy water	Fuel solution	4 kilograms of 90 percent U-235; later thorium oxide blanket.	5,000–10,000	300–1,000
Experimental boiling water reactor—EBWR	Lamont, Ill	1956	Water	Water	4,500 kilograms of 1.4 percent U-235	20,000	5,000
Sodium reactor experiment—SRE	Santa Susana, Calif.	1957	Graphite	Sodium	2,100 kilograms of 2.9 percent U-235	20,000	6,500
Molten plutonium—LAMPRE-3	Los Alamos, N. Mex.	196–					15,000
Gas cooled, graphite reactor	NRTS, Idaho	196–	Graphite	Gas-cooled	Natural U		40,000
(B) Full scale plants, experimental or demonstration programs							
Pressurized water reactor—PWR	Shippingport, Pa.	1957	Water	Water	75 kilograms of 90 percent U-235 plus 12T natural U.	236,000	60,000 (later 100,000)
Fast breeder	Lagoona Beach, Mich.	1960	None	Sodium	2,100 kilograms of 20 percent U-235	300,000	100,000–134,000
Pressurized water	Rowe, Mass	1960	Water	Water	28,800 kilograms of 2.7 percent U-235	480,000	134,000
Sodium graphite	Beatrice, Nebr	1961	Graphite	Sodium	24,600 kilograms of 1.8 percent U-235	250,000	75,000
Boiling water, closed cycle	Elk River, Minn.	1959	Water	Water	90 percent U-235		22,000
Sodium, heavy water	Anchorage, Alaska.	1960	Heavy water	Sodium	1.5 percent U-235		10,000
Organic moderated	Piqua, Ohio	1960	Diphenyl	Diphenyl	U-235		12,000
Gas cooled, heavy water moderated	West central Florida.	1962	Heavy water	Gas cooled	Natural U		136,000
Boiling water	Minnesota	1962	Water	Water	Slightly enriched U-235		66,000
(C) Full scale plants, independent projects							
Boiling water, dual cycle	Vallecitos, Calif	1957	do	do	U-235	20,000	5,000
Do	Dresden, Ill	1960	do	do	68,000 kilograms of 1.1 percent U-235	682,000	180,000
Pressurized water	Indian Point, N. Y.	1960	do	do	275 kilograms of 90 percent U-235 in 8,100 kilograms of thorium.	500,000	275,000
Aqueous homogeneous	Allentown, Pa	1963	do	Slurry	Uranium-thorium slurry		150,000
	Ohio Valley	1962					13,000
	do	1965					200,000
	New England	1964					200,000
	Southeast	1962	Heavy water	Heavy water	Slightly enriched U-235		17,000
	California	1962	Water	Water			
	Puerto Rico	196–					15,000–20,000
		196–					20,000
	Hanford	196–					
		1962					
		196–					200,000–400,000

Reactor concept name	Total cost (reactor cost) (millions of dollars)	Cost per kilowatt (dollars)	Cost per kilowatt-hour (mills)	Constructor	Operator	Remarks
(A) Reactor experiments						
Boiling reactor experiment No. 3—Borax-3	2.8 (reactor .6)				Argonne NL	Dismantled 1956; rebuilt as borax-4.
Boiling reactor experiment No. 4—Borax-4					do	Operating.
Experimental breeder reactor No. 1—EBR-1	6.0 (reactor 2.7)				do	Rebuilding after 1955 explosion.
Experimental breeder reactor No. 2—EBR-2	39.6 (reactor 15.3)	1,940		H. K. Ferguson Co	do	Dismantled 1954.
Homogeneous reactor experiment No. 1—HRE-1.	12.8 (reactor 1.1)				Oak Ridge NL	Operating.
Homogeneous reactor experiment No. 2—HRE-2.	38.8 (reactor 3.3)	3,400		Union Carbide	do	Building.
Experimental boiling water reactor—EBWR	19.7 (reactor 4.9)	980		Allis-Chalmers, Babcock & Wilcox.	Argonne NL	Critical Dec. 1, 1956; regular operation Feb. 9, 1957.
Sodium reactor experiment—SRE	14.4 (reactor 9.3)	1,550			North American Aviation-Southern California Edison.	Critical Apr. 25, 1957; full operation Nov. 14, 1957.
Molten plutonium LAMPRE-3						Indefinite.
Gas cooled, graphite reactor				Kaiser Engineering, ACF (designers).		Plan to be offered Congress.
(B) Full-scale plants, experimental or demonstration programs						
Pressurized water reactor—PWR	110 (reactor 55)	(1)	20	Westinghouse	Duquesne Light Co	Critical Dec. 2, 1957.
Fast breeder	49–68 (reactor 40)	450		Atomic Power Development.	Power Reactor Development Co.	Fully approved but question on safety; construction started 1957.

[1] 1,290 1st core; 770 2d core.

TABLE I.—*United States civilian power reactor program (including all reactors with an electrical output)*—Continued

Reactor concept name	Total cost (reactor cost) (millions of dollars)	Cost per kilowatt (dollars)	Cost per kilowatt-hour (mills)	Constructor	Operator	Remarks
Pressurized water	41–57 (reactor 17.4)	280	8–10	Westinghouse	Yankee Atomic Electric Co.	Fully approved.
Sodium graphite	29.2–42.5 (reactor 13.5)	560	7–11	North American Aviation	Consumers Public Power District.	Fully approved; start construction 1958.
Boiling water, closed cycle	11.75	700	8		Rural Cooperative Power Association.	4,400 kilowatts of electric power is from oil superheating; no contractor yet, following withdrawal of AMF Atomics.
Sodium, heavy water	20 (reactor 8.6)	860		Nuclear Development Corp.	Chugach Electric Association and NDA.	Under study.
Organic moderated	8.0	640		North American Aviation	City of Piqua	Do.
Gas cooled, heavy water moderated	40.2	300		General Nuclear Engineering.	Florida Nuclear Power Group.	Do.
Boiling water	28.8			Allis-Chalmers	Northern States Power, etc. (Central Utilities Atomic Power Association).	Oil superheated; under study.
(C) Full scale plants, independent projects						
Boiling water, dual cycle	5			General Electric	General Electric, Pacific Gas & Electric.	Oct. 24, 1957, full operation.
Do	45 (real cost perhaps 65–90, reactor 34).	250	[2] 7.5	do	Commonwealth Edison, etc.	Ground broken March 1957; full construction began June 12, 1957.
Pressurized water	90	320		Babcock & Wilcox	Consolidated Edison	Construction began February 1957; 135,000 kilowatts of electric power from oil superheating.
Aqueous homogeneous	42	280		Westinghouse	Pennsylvania Power & Light.	Decision in 1959 as to whether to build.
				Indefinite	West Pennsylvania Group.	Under study.
				do	do	Do.
	50			do	New England Electric System.	Do.
				Westinghouse?	Carolinas-Virginia Nuclear Power Association.	Do.
				General Electric or Westinghouse.	Pacific Gas & Electric	Do.
					AEC, Puerto Rico Water Resources Authority.	Do.
					Middle South Utilities	Do.
					Northwest Power Group	Under study; land purchased.
	15–31				East Central Group	Under study.
					Southwest Atomic Energy Association.	Do.

[2] Ultimate.

I would probably be remiss in closing this portion of my review without presenting to your consideration the editorial views of Nucleonics magazine in respect to our civilian power effort, since it is one of the powerful voices in the general field. I do not at this time accept or reject its proposal for a nonpartisan committee, but in leading up to it, an editorial in the October 1957 issue stated as follows:

NEEDED DESPERATELY: NUCLEAR STATESMANSHIP

There has probably been no period in the history of the United States civilian atomic energy effort that is as confused as the one we're in right now. Politics and technology have become so inextricably intertwined that it's impossible to tell which end is up. In fact, the situation seems to be so bad right now that if a high order of nuclear statesmanship does not come into play in the next several months it really won't make any difference which end is up.

To the extent that anyone can identify anything as facts these days, these appear to be the facts:

1. Gas-cooled, natural-uranium, graphite-moderated reactors: The Congress has directed the Atomic Energy Commission to move quickly toward the building of a Calder Hall type reactor, which AEC says shouldn't be built. The Congress says it wants an advance over Calder and that it has in mind the use of enriched uranium at a later date. AEC hurriedly sought proposals from industry, looking toward the initiation of construction in July 1958. Now, Congress says AEC moved too fast, that it is not seeking an advance over Calder, and, is in fact, handling things so that the results of the study to be carried out will dictate against actual building of a plant. Industry, meanwhile, moved into action helter-skelter, trying at the same time to make up for its deficit of Calder know-how, but intending to submit proposals for this new piece of business regardless of how much of an advance over Calder it could realistically propose.

2. Rise in prices: As in any business, the facts of life are learned the hard way, by actual experience. Before any power reactors were built or seriously engineered, economic reactor schemes were a dime a dozen. Now that some plants have come into operation and others are coming close to operation and still others have been studied definitively in a hardheaded way, the bloom seems to be off the rose. Economic reactors are no longer a dime a dozen. Rather, it's the ones that are twice removed from economic or three times economic that can be bought off the shelf. Thus, we came to the very real life situation last month where two major corporations reported a rather considerable disinterest in working with the AEC on building power reactors that might cost the companies much more than earlier estimates forecast. Regardless of the merits of this case, it points up the hard-to-assimilate fact that nuclear power is still a bit away from being an economic proposition in the United States.

3. Engineering problems: The final fact of life we'd like to report is the also obvious one that is now in the forefront: There are some not-too-small technical problems in certain kinds of reactors that the United States has been putting effort into. Homogeneous reactor systems are a case in point. There is reported in this issue the decision of a major utility group not to invest in a homogeneous power reactor because of the very high costs stemming from major technical difficulties. And the homogeneous program at Oak Ridge is riding rather low at the moment for very much the same reason.

Disregarding the very fine and useful progress that is being made in other parts of the United States reactor program, these then are the things that are in the limelight at the moment and that are causing confusion in American industrial ranks and in the minds of outsiders looking in at us.

The United States does not have unlimited manpower. Certainly, the finite number of reactor experts that we have places a finite limit on the diversification of program that we can indulge in.

In addition, and contrary to what other countries may think, we do not have unlimited money available for our atomic energy program.

Thus, we are not in the position many think we're in—that by pressing the right button we can crank out any number of new ideas that will pay off in relatively short order.

What we need more than anything else in the United States right now is to decide what it is that we really want in the atomic energy field. If we want a large number of different power reactors to be built domestically, then undoubtedly the Government is going to have to foot a big part of the bill with industry coming in to the extent it can.

If we want to develop reactors that can be sold abroad, we've got to concentrate on and push that which we're most competent

on. Because it appears that all the world, including England, is going to be moving rather quickly toward the building of enriched reactors, it would seem our best bet to concentrate our efforts on these.

But the editors of Nucleonics humbly reject any cloak of omniscience in this confused state of affairs. We do know for sure, however, that the dogfight now going on between the Joint Committee on Atomic Energy and the AEC is going to do this country no good. Certainly no dynamic reactor policies will result from it. In fact, it looks very much as if the conflict may worsen in the next 6 months.

The recommendation of Nucleonics is that the Joint Committee, in consultation with the AEC, set up a very high level, nonpartisan committee to study these questions:

1. What should the level and breadth of the United States domestic reactor program be?

2. What foreign atomic energy policies should the United States have? In particular, what is the most expeditious thing that the United States can do to improve its power reactor export position?

If the task can be set up and can be carried out with a high order of statesmanship, we may yet get out of the woods.

UNITED STATES MILITARY REACTOR PROGRAMS AND OTHER MOBILE POWER PROPOSALS

The primary use of nuclear material in the military services has been in weapons. However, the great strategic significance of nuclear power was recognized particularly in the Navy where fuel supply has been a principal logistic limit to operations, although Adm. H. J. Rickover, now Chief of the Naval Reactor Branch of the Atomic Energy Commission and Assistant Chief of the Navy's Bureau of Ships for nuclear propulsion, had to work hard to win support for a program. The use of nuclear power in aircraft or rockets has been recognized as potentially even greater in its implications for high performance, but the goal has been so remote until recently, that not as high a priority had been afforded these efforts in the past.

All of these developments are of tremendous concern to civil use of nuclear power because the great expenditures made to accomplish military ends will provide direct benefits to civil power even if a different set of economic rules applies.

Thus, in a submarine, performance and ruggedness come first, with cost a secondary consideration, if the nuclear-powered ship can conquer any nonnuclear-powered ship. Low cost and reliability dominate civil applications which compete against practical alternate use of thermal power. Both types of reactor goals add to our total fund of knowledge about reactors of any design.

THE NAVAL REACTOR PROGRAM

The original submarine reactor prototype was the S1W which has operated in a simulated section of submarine hull in the Idaho desert since 1953. It was followed by the S2W which powers the *Nautilus*, now completing 3 years of sea duty. These reactors are of the pressurized water type, developed by Westinghouse, and they paved the way for the civilian plant at Shippingport. The *Nautilus* has been a great success. One trip took it from New London to San Francisco and back with the trip being made under water from Panama to San Diego. Another trip made an extensive foray under the polar ice cap, to a point near the North Pole. Admiral Rickover called this one of the great adventures of all time.

Following the thermal reactor program, the Navy had General Electric develop its intermediate reactor, the S1G prototype at West Milton, New York, and its seagoing counterpart, the S2G in the *Seawolf*. These use sodium as a coolant, promising greater efficiencies in heat transfer, but our technology is not yet advanced sufficiently to make the steam superheating system work to full capacity without leaking, as a result of sodium corrosion. Both of these reactors have had these heat transfer troubles although the reactor as such has worked well. It is quite likely that the *Seawolf* later will receive a pressurized water reactor if further difficulties are encountered with the sodium plant, but meanwhile it is in commission, and performing regular duties.

Following the construction of these 2 prototype vessels, the Navy is now turning out at a rate of one every 6 months, a standard fleet nuclear submarine, of which there are four in the 578 class: the *Skate, Swordfish, Sargo*, and *Seadragon*. All of these use the SFR reactor, a pressurized water Westinghouse design, as will the *Halibut*, a guided missile submarine. These ships are being followed by another class of fleet vessels which are improved by use of the *Albacore* hull and a single propeller, which allows greater underwater speed and maneuverability. The first of this 585 class is the *Skipjack*. Other names which have been already assigned to nuclear submarines under program are the *Scamp, Scorpion, Sculpin, Shark, Snook*, and *Thresher*. Additional nuclear-powered submarines authorized by Congress are the *Permit, Pollack, Plunger, Triton*, and *Tullibee*.

The *Triton* is the largest submarine yet planned. It will have two advanced reactors, and will be a missile-launching ship. The prototype reactor at West Milton, N. Y., is the S3G, while those in the ship will be called S4G's. The reactors are built by General Electric, and are pressurized water designs.

It is probable that this Congress, by supplemental appropriation, will add at least three nuclear-powered submarines to the fiscal year 1958 shipbuilding program. These would be designed to carry and launch the 1,500-mile Polaris intermediate-range ballistics missile.

An earlier scheme for a nuclear-powered carrier was dropped some years ago, but the research effort then made was incorporated fairly directly into the Shippingport PWR civilian power reactor. Now nuclear power for surface ships is closer to actual accomplishment, with Westinghouse developing two reactor types: The A1W prototype is under construction in the Idaho desert, with two reactors being incorporated in a simulated section of ship's hull; the F1W multiple reactor system will be mounted in the guided missile cruiser *Long Beach*, now under construction at Quincy, Mass.

At Newport News, Va., a nuclear carrier of 70,000 to 80,000 tons is to be built, with eight reactors to be incorporated. This will be the world's largest warship. The Navy would like to order five sister ships at the rate of one a year. Presumably when the reactors are ordered from Westinghouse, they will be designated A2W's.

Under construction is another prototype reactor, the S1C at Windsor, Conn., designed to fit into smaller submarines not yet ordered. Combustion Engineering has the contract. There is also projected a D1G reactor project of the pressurized water type for small surface vessels of frigate size, held by General Electric and managed by the Knolls Atomic Power Laboratory.

The Navy Bureau of Yards and Docks is also sponsoring a study of a portable nuclear powerplant which could be mounted in a barge for use at forward bases, but no contract has been let for construction.

ARMY REACTOR PROGRAMS

The first Army reactor, the APPR–1 went critical on April 8, 1957, and was dedicated at the end of that month. It was built at Fort Belvoir, Va., by Alco Products, producing 10,000 kilowatts of heat, converting into 1,825 kilowatts of electricity. The cost was about $4.3 million. Although theoretically its components are transportable, as a first model, it is rather heavy, amounting to 5,500 tons. This prototype is to be followed by the APPR–1a, by the same builder, and to be located somewhere in Alaska in 1959. These are both of the pressurized water type, and use about 25 kilograms of uranium enriched to 90 percent U–235 for the core. Its annual consumption of 5 kilograms of fuel saves hauling 12,000 tons of coal. The second model is more nearly portable, and will produce 1,550 kilowatts of electricity. Although this is undoubtedly very high-cost power, with capital costs of about $2,400 per kilowatt of capacity, it is intended for use in locations where delivery of conventional fuel might have to be by airlift, and where uncertain weather would make regular flights burdensome.

The Army program includes an even smaller reactor prototype, the ALPR for 1958 completion. This is of the boiling water type, built at the National Reactor Test Station in Idaho for the Argonne National Laboratory. It will produce under 1,000 kilowatts of heat and about 200 kilowatts of electricity. The cost of the project is 1.225 million dollars.

Another announced Army project is the GCRE reactor also building in Idaho. This is a gas-cooled design with the Aerojet-General Corps. and Battelle Memorial Institute participating in the development. It may use molten uranium and bismuth fuel, graphite moderation, and helium cooling, but final details are lacking.

Three other Army studies have been announced. General Motors did an engineering analysis for a possible nuclear-powered overland logistical cargo carrier which could move across many kinds of terrain independent of roads. Gilbert Associates, Inc. made a design study for a 20,000-kilowatt powerplant suitable for use overseas. Raytheon Manufacturing Co. made a design study of a liquid metal

fuel package reactor. From among these studies may come later contracts for actual construction.

These several projects have a commercial significance as well as strategic military importance. Many foreign locations in particular cannot afford and do not need for the present powerplants in the 100,000 kilowatt range. If enough work is done on these small military reactors, there should be benefits flow to the export reactor market as well, a useful supplement to other programs for international cooperation and economic development.

The Army is also engaged in the study of a food irradiation reactor which does not fall within the scope of this review of power reactors.

AIRCRAFT AND ROCKET REACTORS

The successful development of nuclear-powered aircraft or nuclear space rockets presents enormous technical difficulties in design and engineering. This is what lies back of the past tendency for the programs to blow hot and to blow cold. Effective combat aircraft with nuclear power have been sufficiently remote that when budget squeezes appeared, it was easier to assign funds to other projects which seemed more likely to reach operational use earlier. This is logical practice in the short run, but its effect over the long stretch should be subjected to thoughtful analysis.

Shortly after World War II, a design study project for nuclear aircraft was assigned to the Fairchild Aviation Co. under the name NEPA, but it did not lead to any actual construction because reactor science was still at so primitive a stage.

The military services and the Atomic Energy Commission in some past years have been reluctant to publicize just what work was being undertaken to develop nuclear aircraft. However, press releases issued from time to time, and public requests for appropriations have shown a considerable number of companies involved in such work.

Carbide & Chemical Co. at Oak Ridge in 1954 tested, then dismantled, a reactor called the ARE, intended to study applications in aircraft. It ran on molten uranium fluoride salts highly enriched with U–235, generating about 1,000 kilowatts of power on the average in 4 full days of continuous operation. Another Government activity has been the establishment in September 1955 of a facility near Sandusky, Ohio, for the National Advisory Committee for Aeronautics for the testing of aircraft reactor ideas and components.

The Air Force has had various study contracts intended to lead to reactor and engine construction with General Electric, Pratt and Whitney, and Curtiss-Wright. General Electric has constructed facilities at Evendale, Ohio. Pratt and Whitney has helped to run the big CANEL laboratories at Middletown, Conn. Airframe contract studies were made with Convair, Lockheed, and Boeing, in the competition for an eventual WS–125A contract to build a nuclear plane. The Air Force has also started work on its own test reactor to study components, at the Wright Aeronautical Development Center at Dayton, Ohio.

These several projects have had their vicissitudes. General Electric has worked with Convair to place a live reactor in a B–36 bomber to study problems of shielding and weight distribution, flying this plane from Fort Worth. General Electric also tested its HTRE–1 reactor at the National Reactor Test Station in Idaho. This reactor actually supplied heat to operate a jet engine on the test stand. Work is also under way in Idaho to build an enormous airstrip for eventual use by experimental aircraft. Another heat transfer reactor is to be built at Lockland, Ohio, by General Electric. There has been some feeling that the work presently being done is something which could lead in a relatively few years to an aircraft of only intermediate performance capabilities, but General Electric is confident that adequate performance can be attained.

The Pratt and Whitney effort was intended to be teamed with air frames built by Lockheed and/or Boeing. Apparently the design study was for a very high performance engine, and success must have been thought too far away, because the major Pratt and Whitney contract was canceled. Nothing recently has been said about a Boeing nuclear plane. Lockheed, however, is active in the nuclear field, but probably in another connection to be discussed presently.

The Navy has also had a series of design contracts with various manufacturers, these efforts being coordinated with the Air Force work. Both Martin Aircraft and Convair have been considered as potential builders of nuclear-powered flying boats. Howard Hughes, a pioneer in large seaplane construction, also is believed interested. Even the Air Force has given serious consideration to the advantages of seaplanes because of the hazard of land operations with radioactive materials. Accidents in or over water areas would likely be less serious in consequences, and a reactor could even be routinely lowered into water for extra shielding when not in use. Reactor or engine design contracts of the Navy have been with Allison Division of General Motors, Air Research of Garrett, the Nuclear Development Corp., General Electric, and Curtiss-Wright.

Only little bits of another area of development have been made public. This is to apply nuclear power not to heat the air passing through a more or less conventional jet engine, but to operate either ramjets or rockets. Chemically-powered ramjets and rockets have been so slow in maturing as techniques that understandably nuclear propulsion in these fields has also been slow.

The code name, project ROVER, has been applied to this effort. Apparently the N division of the Los Alamos Laboratory has been making design studies for many years. The Livermore Laboratory also had a contract which was canceled, but as a result of Congressional outcry, it was renewed again last fall. There are three signs that some progress is being made. The Lockheed company apparently has some related work under way. It is to build a research reactor at Palo Alto, Calif., for experimental purposes, and is developing a large reservation near Dawsonville, Ga., for test purposes. The Atomic Energy Commission must feel that some phases of the work are far enough along for larger scale testing because it is adding rocket or ramjet facilities both at Las Vegas, Nev., and the atomic proving grounds nearby.

The ramjet approach might allow the operation of supersonic planes, manned or unmanned, to travel unlimited distances around the earth, either very low to escape easy radar tracking, or in the upper atmosphere where friction is less. Nuclear aircraft with turbine jet engines might be particularly useful for ocean and Arctic radar patrol. Nuclear rockets suggest the possibility of outmoding the ICBM with guidance all the way to target so that interception by an antimissile missile would be much more difficult. A nuclear rocket of moderate performance, but with power sustained longer than is true of chemical fuels probably would heat and expel a gas. Another design approach which has been suggested is a runaway reaction midway between a controlled reaction and an atomic explosion. This could yield speeds as great as 100,000 miles per hour or more, probably of use only on trips well away from the earth.

The Air Force has design studies under way on even more exotic power systems, some of which would use nuclear reactors, such as ionic rockets and photon rockets. These would not be used for takeoff from the earth but are potentially important for travel to other parts of the solar system. This is an effort of great interest but not one which will become an operational phase of military technique within the next decade, as far as one can judge.

MERCHANT-SHIP REACTORS

It was in April 1955 that the President announced plans for a nuclear powered merchant vessel, a vessel to be used for demonstrating the peaceful uses of atomic energy, but not one which could compete economically in world commerce. The plan raised early Congressional opposition as a waste of money. That same spring there was some talk that the proposed new sister ship of the liner *United States* could be nuclear powered. The Norwegians that spring suggested their own ultimate hope would be for a nuclear-powered ship of 40 knots speed, using a jet-propulsion system in place of propellers.

The House of Representatives in the summer of 1955 passed a bill which substituted for the President's plan a vessel to be built with special attention to economical operation, although this would take longer to accomplish. However, the bill did not pass in the Senate.

In October 1955 the British Shipbuilding Research Association revealed that it was working with scientists at Harwell to develop plans for nuclear powered merchant ships to supplement the work on nuclear submarines for the Royal Navy, already under way for 5 years. A month later the Russians announced

plans for an Arctic icebreaker merchant vessel. As originally described, it was to develop 200,000 kilowatts of power and to cut its way through ice by means of steam jets as well as using its hull. The following month the United States Maritime Administration renewed its request for Congressional authorization for a nuclear-powered vessel.

In January 1956 the President sought funds for two nuclear vessels. One was to be an exhibition ship to be built fairly soon, and the other was to be a nuclear-powered tanker, a type that offers early opportunity to be economical in its operations because it will spend most of its time at sea, which allows its high speed and expensive powerplant to earn its capital costs, unlike the typical ship which spends much time in port because of cargo-handling delays.

By the spring of 1956 the administration plan for its first nuclear-powered ship had changed from a predominantly passenger vessel to one with both cargo and passenger capacity, propelled by the same general type of reactor as used in the *Nautilus*. A study contract was made that spring with Newport News Shipbuilding & Drydock Co. for the possible installation of a nuclear powerplant in a Mariner-type hull. Bethlehem Steel already had a contract for a study of various components of nuclear systems. In June 1956 West Germany formally created an association to design a nuclear-powered ship.

After considerable debate and some disagreement, finally by July a bill authorizing the construction of a nuclear-powered vessel was passed by Congress and signed into law. It called for the Maritime Administration to build a combination passenger-cargo vessel. The authorized ship could carry an advanced type of pressurized water reactor, but if this were decided, construction would take about 9 months longer. The tanker proposal did not become law.

A Soviet official announced in September 1956 that the second Soviet nuclear ship would be a whaling factory ship of 50,000 tons, the largest in the world, and the hope was to launch it in about 3 years. Our Government that month granted a feasibility contract for a nuclear tanker to the Ford Instrument Co. division of Sperry Rand Corp. This design study was to consider development of a closed-cycle gas turbine which would bypass the intermediate step of converting steam to electricity as used in the pressurized water reactors. It was hoped that this could be the basis of a much more economical powerplant. In November a similar contract was awarded to General Dynamics.

All major seapowers are interested in the potentialities of nuclear plants. By March of 1957, the Japanese announced that they were studying nuclear-powered ships, and hoped by 1966 to have at least two in operation. The Osaka Shosen Kaisha revealed that it hoped to build a passenger vessel of 20,000 tons so powered.

In April 1957 a contract finally was let for the construction of the reactor for the first American vessel with nuclear propulsion. Babcock & Wilcox won the contract. The plans for designing the ship that same month went to George G. Sharpe, Inc.

Private industry also moved directly into this field of activity. Cities Service Petroleum made tentative arrangements in June 1957 to order from a Swedish shipyard a nuclear tanker of 65,000 tons deadweight. The hull was already on order as the last of three sister ships. It was hoped that a reactor from the United States could be installed in it before the ship would otherwise be completed.

The Sharpe firm made public through the Maritime Administration its exterior plans for the first ship, to be built at a cost of $42.5 million, and to be ready in 1960 after a keel laying in the spring of 1958. In July 1957 the Russians released the first photographs of their nuclear icebreaker, the *Lenin*, under construction at Leningrad.

By October the Maritime Administration had received 18 proposals for the design of a closed-cycle turbine nuclear plant for installation in a tanker. On October 29, 1957, our first nuclear ship was announced by the White House to have been assigned the name *Savannah*. Two days later, the French Government announced officially that it was going to construct a nuclear-powered tanker of 40,000 tons, with 40,000 horsepower, about double that of the first United States ship.

Finally in November, the contract for the actual construction of a ship's hull for the *Savannah* was awarded to the New York Shipbuilding Corp. of Camden, N. J.

Another important innovation under serious study is the submarine merchant tanker. First public attention was called to such possibilities by the Japanese in December 1956. Although still very tentative it was thought the first Japanese nuclear ship would be a conventional tanker, designed by the Hitachi Shipbuilding and Engineering Co., of 47,000 deadweight, with a sodium graphite reactor of 20,000 horsepower. But the second might be a submarine tanker, designed and built by the Mitsubishi Heavy Industries Ltd. The ship would be of 30,000 deadweight, able to sail beneath the sea without regard to surface storms. Navigation would be from a special bridge projecting 15 to 18 feet above water.

The first British nuclear tanker was announced in March 1957 as having an expected capacity of 80,000 tons, and to be ready by 1963. In July Hawker Siddely and John Brown Nuclear Construction, Ltd. announced they were studying a 65,000 ton or larger nuclear tanker. By October 1957, sufficient detail of British plans had become public to reveal that a nuclear-powered submarine of 80,000 tons was under investigation by Saunders-Roe. This would have the fantastic speed of 50 knots. Field Marshal Viscount Montgomery stated that the Japanese plans had been enlarged to include a submarine of 65,000 tons.

In November 1957, American television audiences were shown films of the actual hull form for the British nuclear tanker being tested in a model basin. The proposed vessel, as the fastest in the world, would be able to deliver enormous quantities of oil from the Middle East around the Cape of Good Hope, probably to a new superharbor at Milford Haven in Wales.

With considerable fanfare, the Russian nuclear icebreaker *Lenin* was launched on December 5, 1957. It provides accommodations for 1,000, should be able to cut through ice 6 feet thick, and is expected to visit Antarctica before the end of the IGY. However, there is no evidence other than official Soviet statements that a nuclear propulsion plant is actually building to power the ship.

NUCLEAR POWER ON THE WORLD SCENE

This report for the most part has only made brief allusions to nuclear developments outside the United States, except for the foregoing section on merchantship reactors which illustrates the competitive elements on the world scene which are likely to influence United States policy.

In fact, so much is happening in foreign countries, relating to nuclear power in general, that a much more extensive report is required. The material which follows summarizes the principal developments.

BRITISH PROGRESS

In the early days of atomic development during World War II, Great Britain along with Canada, supplied scientific help to the United States, and made available British Commonwealth supplies of raw materials from which nuclear fuel could be refined. But in the Free World, only the United States had the actual costly plants for the gaseous diffusion of U–235 essential both to the making of weapons and to the building of reactors. We also had the only full-scale plants for the manufacture and separation of plutonium.

The terms of United States law after the war largely ended exchange of information and personnel in the field of atomic energy between the United States and its British and Canadian partners. The British had to build their own facilities for production, as well as expanding their experimental laboratories. They built rather limited facilities for the separation of U–235 at Capenhurst, but the output has been so small that all was required for the British weapons program. They also built plutonium piles at Windscale with the output going to weapons.

The British felt the urgency of a power program earlier than the United States because of national dependence on imported oil fuel and the increasing costs appearing in the coal industry. At the same time, availability of nuclear materials for even a modest weapons program was limited. This led, rather naturally, to considering the possibility of a dual-purpose reactor which would produce plutonium for weapons but operate at a high enough temperature to create steam for the generation of electricity. Of sev-

eral potential reactor designs, one type particularly commended itself to British conditions. This was the graphite-moderated, gas-cooled, natural-uranium-fueled reactor. This was a type that would not require the use of scarce U–235, a fuel which makes for compactness and efficiency, but which first requires a tremendous investment in separation plants. Also, the British design required a pressure vessel which was easier to construct at the present stage of metallurgy than the types under consideration in the United States. Graphite was more available than heavy water for use as a moderator.

This was the origin of the Calder Hall program in 1953, a compromise which would meet the pressing need for more weapons-grade plutonium and also give practical experience in the full-scale operation of a power station. As construction proceeded, and laboratory experimental work continued, the design concept looked promising enough under British conditions, and the power need was urgent enough if a power shortage was not to curb the further growth of the economy in the years immediately ahead.

So, at the same time that the United States, unpressed by power shortages, announced the initial 5-year demonstration program to test various reactor concepts in full scale, the British Central Electric Authority announced the plan to construct 12 nuclear stations by 1965, all modeled after Calder Hall, generating between 1.5 and 2 million kilowatts. It was thought that perhaps the last stations in the program would be liquid cooled rather than gas cooled, if technology had advanced sufficiently to make the improvement worth while. This $800 million program would make up one-quarter of the capacity additions planned in the Authority's power plans for the decade.

Meanwhile, the Atomic Energy Authority was concerned with development of other reactor models and had started work in the north of Scotland and Dounreay on a fast breeder reactor cooled with liquid sodium and potassium. This was to be a plant of intermediate scale, better able to afford operating experience than a small laboratory prototype.

By May 1956, the first Calder Hall reactor had gone critical. That summer, too, the British announced that revisions of plant design through advancing technology were likely to raise the power output of their program from the range of 1.5 to 2.0 million kilowatts to the range of 3 to 4 million kilowatts. On October 17, the Calder Hall A unit began regular operation, feeding power into the national grid.

The Suez crisis in the fall of 1956 gave a new urgency to nuclear power development in Great Britain, and the 10-year program was pushed forward to the point of signing contracts with builders and picking sites for the first of the stations for the Central Electrical Authority. In addition, the Atomic Energy Authority plans included a similar plant of the Calder Hall type at Calder Hall, and two more of the same type at Chapelcross. The Central Electric Authority plants under contract included one at Bradwell, Essex, one at Berkeley in Gloucestershire, and one at Hinkley Point in Somerset. A similar large plant was planned by the South of Scotland Electric Board at Hunterston in Ayrshire.

British resolution to spur their program even more became public in March 1957. The capital expenditure was raised from $840 million to over $2.5 billion, and the capacity was expected to be somewhere between 5 and 6 million kilowatts. It was expected that about 20 large stations would have to be built by 1965.

It is difficult to make an exact comparison in size between the British and United States programs, or to compare their differing objectives and reasons for being. The firm United States program is relatively modest in total kilowatts, but the British are not committed finally to construction of all their decade program, either. However, all rational methods of counting seem to indicate that by 1960, and also by 1965, the British lead in total nuclear power generation will be substantial compared with the United States, as each country projects plans today.

In October 1957, there was an accident at the Windscale plutonium reactor which melted down some fuel cartridges, and overwhelmed the chimney filters so that radioactive materials settled on part of the surrounding countryside. It is important to emphasize that this accident had nothing to do with normal power-generating procedures and probably not even with regular plutonium separation. Happily, most of the fallout was carried out to sea, but there were two unfortunate consequences of the accident. One was some loss of public confidence in reactor safety and possibly in Government candor—although this was belatedly rectified; the other was the loss of plutonium output for an indefinite period from this reactor, with a consequent cutback in important weapons development work by the British.

The United Kingdom is also expected within the next decade to have at least one large nuclear plant in northern Ireland. This may be a large, fast breeder reactor, which would depend upon the outcome of work under way at Dounreay.

A very inconclusive debate has raged between proponents of the American pressurized water reactors and the British gas-cooled ones. In the first place, each type of reactor has its place to fit the circumstances. Secondly, construction costs in the two countries vary enough as to change the economics of design. Thirdly, in both countries arbitrary changes in Government policy relative to the supplying of fuel and the repurchase of spent fuel elements for their plutonium can alter the apparent contrasts. Only after these are taken into account does the further important question of differences in interest rates, depreciation, and tax policy also become pertinent in making a judgment.

W. Kenneth Davis of the Atomic Energy Commission reported in July 1957 that using data supplied by the British, and translating these to American conditions, the gas-cooled reactor with natural uranium fuel will not give the United States competitively low-power costs in the foreseeable future. He points out that the British, despite their large commitment to construct gas-cooled plants, are working very hard on other experimental types of reactors.

A study sponsored by the Commission and made by the American Radiator & Standard Sanitary Co. under contract, was made public last May. It compared second generation plants of the Shippingport and Calder Hall varieties of similar power outputs—90,000 kilowatts—and this showed a slight cost edge for the Calder Hall design in the United States—17.9 mills as against 19.6 mills. In a British setting, the Calder Hall design has an even greater advantage—8 mills as against 13.1 mills. Congressional advocates of a gas cooled natural uranium reactor in the United States claim support from this study, but it is not necessarily inconsistent with the Davis conclusions. Very possibly more recent types of water reactors offer the United States the best economic prospects until some advanced breeding, homogeneous, aqueous, or molten metal reactor is completely developed. William L. Laurence, writing in the New York Times for January 5, 1958, summarized these possibilities as follows:

COST OF ATOMIC-POWERED ELECTRICITY BEING BROUGHT NEARER TO ECONOMICAL LEVEL

(By William L. Laurence)

The last week of 1957 saw two significant developments in the field of atomic power, each marking an important step toward the goal of producing electricity from the atom at a cost competitive with power produced from conventional fuels.

From the Argonne National Laboratory of the Atomic Energy Commission near Chicago, Ill., came the announcement that improvements in the operation of the experimental boiling water reactor (EBWR) has made the plant potentially capable of producing the Nation's cheapest atomic electricity, though it would still be far from being actually competitive with electricity from coal or oil.

At the same time came the announcement from the Atomic Energy Commission that an advanced type of an experimental atomic powerplant, known as the homogeneous reactor experiment No. 2 (H. R. E. 2) has gone into operation at the AEC's National Laboratory at Oak Ridge, Tenn. This type of nuclear reactor, when further developed, promises a number of distinctive advantages over present types of large-scale atomic powerplants which are expected to lead to a considerable reduction in the cost of industrial electricity from the nuclei of heavy atoms, uranium, plutonium, and thorium.

The experimental boiling water reactor consists of a system in which water is heated to steam by the fission process in the reactor core, the steam then passing directly into a turbine which operates an electrical generator. The system differs from the water reactor used in atomic submarines and at the large-scale atomic powerplant recently put in operation in Shippingport, Pa. In the latter type the heat from the split atoms is transformed to a heat exchanger by circulating water under pressure, the heat exchanger, in turn, producing steam for the turbine.

HOW IT WORKS

The homogeneous reactor type utilizes a solution of suspension of nuclear fuel in water, which serves both as a moderator, to slow down the atom-splitting neutrons, and

as a coolant. The newest type is a two-region reactor consisting of a cone filled with a heavy-water solution of uranyl silicate, a compound of uranium and sulfur which is soluble in water. The core is surrounded by a blanket containing heavy water, that is, water in which the hydrogen has a mass double that of hydrogen in ordinary water.

The fuel solution is pumped under pressure through the reactor vessel where it is heated by the fission of the uranium nuclei in the dissolved compound. The solution is then passed through heat exchangers, where the heat is released to produce steam. The steam can then be used to drive a turbine-generator system to produce electricity.

One of the great advantages of the homogeneous type of reactor results from the fact that it can be kept free from the fission products, the accumulation of which in plants using solid fuel elements constitutes one of the major operating problems. The homogeneous reactor plant includes chemical processing equipment for purifying the irradiated fuel solution by continuously removing solid corrosion and fission products, thus making it possible for the plant to be kept in continuous operation, without the requirement of costly reprocessing of the solid fuel.

IMPROVED DESIGN

The HRE–2 represents an advance in physical size and in technology over HRE–1, which in 1953 became the second United States reactor to produce electric power from nuclear energy. It has a heat output of 5,000 kilowatts, most of which will be dissipated into the atmosphere. The remainder will be supplied to a small turbine-generator system to produce 300 kilowatts of electric power.

Compared with its power output, the experimental boiling water reactor at Argonne is a veritable giant. It was originally designed to produce 20,000 kilowatts of heat and 5,000 kilowatts of electricity, a power level achieved on December 29, 1956. Following a year of experimentation, the plant was operated last week at a power level of 50,000 kilowatts, or 2½ times its original design level. Furthermore, the 50,000-kilowatt level, the AEC announced, was attained with no change in the number or arrangement of the fuel elements within the reactor core.

The new high level, it was reported, was achieved by causing the water to boil at a higher than normal rate, resulting in faster circulation through the core and in a more rapid removal of heat.

In addition, calculations by Argonne scientists and engineers indicate that with further modifications the EBWR could produce up to 100,000 kilowatts of heat and 25,000 kilowatts of electricity. This level of operation, however, would require the addition of more fuel and a turbine-generator and condenser of larger capacity than those of the present plant.

COST BROUGHT DOWN

The increase in the power level from 20,000 to 50,000 kilowatts means, according to Argonne engineers, a reduction in the cost of atomic electricity from 52 mills per kilowatt to 32 mills, or a reduction of nearly 40 percent in the cost. Chicago public utilities now produce electricity at a cost of about 7.5 mills per kilowatt-hour. On the other hand, it was pointed out, 20 mills would be economical in some areas.

Argonne scientists added that they believed it was possible that their equipment and methods could, in about 10 years, bring the cost down to 10 mills per kilowatt-hour, which would be within the cost range of conventional utility plants in the United States.

The key to atomic power economics is the cost of fuel, which, at the Argonne unit, is slightly enriched uranium, worth $750,000. This fuel, it was said, accounts for 20 of the 32 mills of the cost per kilowatt-hour. Considerable reductions are expected by getting more mileage from the fuel and by lowering the initial cost of its processing.

British merchant ship reactor plans have been described. Work on nuclear submarines is further advanced. More than 5 years of effort have been invested already. A prototype submarine reactor is building at Dounreay, and it will be of the pressurized water variety used in the *Nautilus*. The work is being done by Vickers, Rolls Royce, and Foster-Wheeler. The first submarine is to be named the *Dreadnought*. Current newspaper accounts indicate the project may be abandoned in order to release scarce scientific personnel to other projects.

Although this report is not concerned with nuclear weapons, perspective requires the mention that the British are now armed with home-developed weapons in both the kiloton and megaton ranges. Tests have been carried out in Australia and the central Pacific, including airborne fusion weapons. Progress has also been made in controlling the amount of radioactive fallout, that is, developing the clean weapon.

Substantial British progress in thermonuclear power is covered later in this report.

Table II summarizes the British power-reactor program.

TABLE II.—*United Kingdom civilian power reactor program (including all reactors with an electrical output)*

Reactor concept name	Location	Scheduled completion date	Moderator	Coolant	Fuel	Heat output	Electric output	Total cost (millions)	Cost per kilowatt	Cost per kilowatt-hours	Remarks
(A) Atomic Energy Authority:										*Mills*	
Calder Hall A	Sellafield, Cumberland.	1956	Graphite	CO_2	Natural U	360,000	65,000 (later 92,000)	$42–$56	$565	7	Construction started 1953. Went critical May 22, 1956.
Calder Hall B	do	1958	do	CO_2	do	490,000	92,000	42			Regular operation Oct. 17, 1956.
Calder Hall A type	Chapelcross, Dumfriesshire.	1958	do	CO_2	do	400,000	92,000	42			All 4 units contain 2 reactors each. Their purpose is to breed weapons grade plutonium at a ratio of 0.8.
Calder Hall B type	do	1959	do	CO_2	do	400,000	92,000	42			
Fast breeder	Dounreay, Caithness.	1958	None	Sodium-potassium.	Highly enriched U–235 with thorium blanket; alternately Pu in U–238 blanket.	60,000	15,000				Breeds plutonium at a ratio of 1.7.
(B) Central Electric Authority:											
Calder Hall Type PIPPA 1 and 2.	Bradwell, Essex.	1960	Graphite	CO_2	Natural U		300,000	112	325 to 350		These 5 units include 2 reactors each, and breed some plutonium as well as producing power. They are to be followed by 15 more large reactors to be completed by 1965, but these may be water cooled rather than gas cooled. The first 3 were started in 1957.
Calder Hall Type PIPPA 3 and 4.	Berkeley, Gloucestershire.	1960	do	CO_2	do		275,000	112			
Calder Hall Type	Hinkley Point, Somerset.	1961	do	CO_2	do		450,000	112			
Do	North Wales	1962	do	CO_2	do		500,000	112			
Do	do	1962	do	CO_2	do		500,000	112			
(C) South of Scotland Electric Board:											
Calder Hall Type	Hunterston, Ayrshire.	1961	do	CO_2	do		180,000	49			Work started in 1957, 2 reactors, breeds some plutonium.
Do	do	1962	do	CO_2	do		180,000	49			2 reactors, breeds some plutonium.
(D) Northern Ireland Government: Fast Breeder.		1963–64	None	Sodium-potassium.	U–235 or Pu–239 in blanket of thorium or U–238.		200,000	98			2 reactors, 1.7 breeding factor for production of plutonium.

SOVIET PROGRESS

It remains difficult to report with certainty the exact status of Soviet nuclear-power developments because of Soviet restrictions on the gathering of news. What I report here is subject to the credibility of Soviet statements of their activities. In the middle of 1954, the first small nuclear powerplant was opened, one with a capacity of 5,000 kilowatts of electrical output. The first pictures of it were released in January 1955. Further details were not released until the time of the Geneva Conference in August 1955. Disclosures at that time also showed that the Russians must have one or more gaseous diffusion plants because of their use of enriched uranium in some experimental reactors.

The sixth 5-year plan announced at the beginning of 1956 called for the building of atomic powerplants by 1960 with a total capacity of 2 million to 2.5 million kilowatts, which is larger than the British 1965 goal of the same time—subsequently the British goal has been tripled. The Russians at that time also claimed that the first large station in the fifty to one hundred thousand-kilowatt range was already under construction.

At the 20th party congress, I. V. Kurchatov claimed that the Soviet Union was making good headway on thermonuclear-power research, on atomic-powered aircraft and land vehicles, and on an atomic-powered icebreaker. New power stations planned for completion by 1960 included a pair with a combined capacity of 1 million kilowatts in the Urals, and one of 400,000 kilowatts near Moscow. Kurchatov also stated that the Soviet program included building 10 different reactor types, falling within the general range of fifty and one hundred thousand kilowatts—probably their heat output—a program corresponding to the United States reactor-demonstration program.

Kurchatov made quite an impression on British scientists in April 1956 when he discussed at Harwell, Soviet experimentation with thermonuclear phenomena. [redacted] information he presented was mor[redacted]led than that allowed by the se[redacted]rules of Britain and the United States.

Although not of immediate application for power programs, Soviet research in high-energy physics is worth noting. The Russians have completed a 10-billion electron volt particle accelerator, and are designing one with a capacity of 50 billion electron volts. The University of California bevatron has a capacity of 6 billion electron volts, and a machine projected for Brookhaven is in the thirty-to-fifty-billion range.

For a long time, the location of the first Soviet nuclear powerplant was not known. The first Western visitor to it, seems to have been the Norwegian physicist, Arne Lundby, chief of reactor physics for the Norwegian Atomic Institute. It turned out to be 67 miles south of Moscow, to be moderated with graphite and cooled by pressurized water. Its fuel is enriched from one-one hundred and fortieth to one one-twentieth of U–235.

The next detailed story about Soviet nuclear power was released in June 1957. The first big power station, location unknown, is to have a capacity of 420,000 kilowatts and be ready in 1960. It will be fueled with enriched and natural uranium, apparently an enlargement of the design concept used in the first 5,000-kilowatt plant. The first stage of construction will include three 70,000-kilowatt steam turbines.

No Westerner has been permitted to visit the location of this first powerplant, so the stage of construction is not known. It is possible that the Russians wish to complete their station and put it into operation before further disclosures are made. On the other hand, it is very likely that the amount of the total program to be completed by 1960 has been markedly reduced by higher priority projects in other fields of endeavor. Weight can be given to this interpretation because even with our great lead in nuclear research, there have been unexpected problems which have delayed several of our projects. Recent scientific achievements by the Russians, however, illustrate that it might be dangerous for us to base our policies on the firm conclusion that the Russian program has bogged down in any serious way.

The Soviet nuclear ship program has been discussed earlier. No mention has been made by the Russians of a nuclear submarine program. Considering the extreme importance of submarines to Soviet naval strategy, and the immense advantage nuclear submarines have over the diesel variety, it would be inconceivable that a nation with a nuclear energy program would neglect submarine reactors. The only safe planning assumption the United States should make is that a Soviet nuclear submarine is either under construction or already undergoing tests, and that the next 5 years will see the start of a fleet submarine program with nuclear power.

Strong Soviet public interest has been shown in nuclear aircraft. Some Western visitors returned from the Soviet Union recently, report that nuclear flight is expected soon, but this is speculative in character.

Soviet aid to satellite countries includes a power reactor of 2,000 kilowatts which began operating December 16, 1957, near Dresden in East Germany. Also scheduled for completion in 1957 was a 7,000 kilowatt reactor in Red China, with no announcement as to the location. Rumania, Hungary, and Czechoslovakia all have hoped for full-scale power stations to be complete by 1960, but there may be some delay.

FRENCH PROGRESS

The French program for nuclear energy has followed somewhat along the path of the British but is not quite as advanced. Following construction of a series of experimental reactors, the first production plants were planned for Marcoule in the Rhone Valley of southeastern France. These were patterned after Calder Hall. That is, they are gas cooled, graphite moderated plants operating on natural uranium and producing plutonium as well as power. The program was announced in March 1955. The Marcoule G–1 and G–2 reactors were expected to cost about $86 million.

In addition to the Marcoule program, operated by the French Atomic Energy Commission, a power program was announced in August 1956 by Electricité de France. The first station in the Loire Valley, for completion in 1960, is to have an initial power output of 60,000 kilowatts, later to be raised to about 300,000 kilowatts. It will be at Candes, followed by a similar plant at Chinon, also in the Loire Valley, a year or so later.

The G–1 reactor went into operation in January 1956, but its output of 5,000 kilowatts of electricity at full operation has been used completely in the operation of its own air blowers. This emphasizes its main purpose to be plutonium production.

Until the time of the Suez crisis, all public statements on the purposes of the atomic industry in France excluded the development of weapons. It is worth noting, however, that the decision to follow the Calder Hall pattern in the development of Marcoule clearly left the door open to making nuclear weapons with the plutonium produced, and this may very well have been done with foresight. After the Suez crisis broke, there was open talk that France might have to develop its own weapons. There were many individuals, however, who felt this might be disastrous for the future development of the Euratom program. By the end of 1957, the early development of weapons seemed to have become a definite policy, not just a threat.

The French have introduced one notable technological change. Their large pressure vessels are to be of reinforced concrete rather than steel. If the results are satisfactory, there may be opened a route to new economies in construction costs. The G–2 and G–3 reactors are to be in full operation by sometime in 1958, when they will turn out about 60,000 kilowatts. A G–4 reactor may be built by 1960 either at Marcoule or in Algeria.

There is a nuclear submarine program for the French Navy. The first vessel, expected to be quite large, may be completed in 1962.

EURATOM AND ITS ANTECEDENTS

When it was appreciated that nuclear energy could be used to generate useful power, countries the world over hoped to solve many of their problems through an expansion of energy derived from fission of uranium. The less developed countries hoped for the greatest changes, but were least ready for the new technology which had yet to be put to practical use. Many of the European countries were technically capable of handling atomic reactors with a minimum amount of new training, but in the early postwar years they were short of all the essentials of materials, equipment, and manpower to carry on individual development programs of any magnitude. There were a few cooperative efforts, as for example, the joint Netherlands-Norwegian research plan, with a reactor at Kjeller, Norway.

By the spring of 1955 the United States indicated that it was soon going to be prepared to render assistance to other nations who wanted research and power reactors. The Geneva Conference was seen as a means for peaceful development of the atom, providing an opportunity to arrange export of technology from the leading countries which had already made a start in nuclear energy. In July 1955 the OEEC was urging that Western Europe coordinate plans for nuclear development because it would be more economical and practical than to have each separate country carrying out duplicate efforts. Its detailed plan was to be announced shortly after the Geneva Conference closed. It was foreseen that success for the plan would depend upon British technology and upon French uranium resources. Many experts recognized that only nuclear power was likely to be able to meet the rising demand for power everywhere in Europe.

It was evident that if an early start were to be made on reactors, particularly any type other than the ones fueled with natural uranium, United States help would be required. A plea for early United States supplies was brought to this country by Gunnar Randers of Norway in October 1955. By the end of 1955 Jean Monnet of France was pressing hard for European cooperation in the field of atomic energy as an essential form of European union. The countries of France, West Germany, Italy, Belgium, Netherlands, and Luxembourg, which made up the Iron and Steel Community, formed an action committee to study what might be done, and it was their hope the British might be led to join the coalition.

By February 1956 the Action Committee was meeting with members of the OEEC, looking for areas of compromise which would make possible a supranational plan for atomic development. However, the British were afraid their own nuclear development plans would be close to impossible to carry through to meet their own needs, if resources were diverted to various European projects.

The planners also hoped that United States help could be obtained for the building of a gaseous diffusion plant to serve all the countries of Western Europe needing U–235. It was clear that questions of security to guard against use of certain nuclear materials in weapons was a stumbling block to the plans.

By October 1956 a draft statute had been prepared in the United Nations calling for the creation of an International Atomic Energy Agency. Some 82 countries unanimously approved its terms. Of necessity, it was a much more limited scheme than the proposals being made within Western Europe for cooperation. It set up procedures for exchange of information, supplying of nuclear materials. Many countries on both sides of the Iron Curtain signed the plan. In support of the program, the President in November 1956 stated the Atomic Energy Commission would make available 20,000 kilograms of uranium enriched to 20 percent of U–235—too low an enrichment to use in weapons. It was to be supplied to various countries under a number of bilateral pacts, as well as including 5,000 kilograms supplied to the International Atomic Energy Agency itself.

The closing of the Suez Canal not only lent greater urgency in late 1956 to the nuclear plans of Britain and France, but of all the countries of Western Europe. It was not settled yet whether a strong supranational organization like the Iron and Steel Community would be better, or whether the looser OEEC should set the pattern. A draft treaty under development was called Euratom, and it was hoped to have it ready early in 1957.

The six countries of the Iron and Steel Community did sign the proposed treaty, and in May 1957 announced specific goals for the first decade of construction. It called for 15 million kilowatts of electric power capacity. Clearly so ambitious an undertaking would take the help of the United States, Britain, and Canada. The plan was advanced by the three wise men—Louis Armand, of France; Franz Etzel, of West Germany; and Francesco Giordani, of Italy. The program was expected to cost about $2 billion just for fuels. It would rely initially upon the British type of reactor, and would need natural uranium from Canada, to supplement supplies from France and the Belgian Congo. The powerplants were expected to cost about 2 to 2½ times as much as conventional powerplants, meaning an extra cost of about $4 billion over what would have to be spent anyway for conventional plants otherwise needed during the decade. They estimated that the resulting electricity based on present technology would cost between 11 and 14 mills, as compared with current typical European costs for conventionally generated electricity of 11 to 12 mills. It is interesting to note that the expectation is that even if all nuclear fuel had to be imported, it would cost about $200 million a year at the end of the 10-year period, as compared with a cost of $800 million a year for an equivalent amount of coal and oil.

In the light of European needs for further economic growth, there seems but little doubt that the plan for nuclear expansion is well conceived, but there is great question whether all the resources needed to make it a reality in a decade are actually present. Clearly, reactors purchased from both the United States and Britain will be required. But United States reactors usually require enriched fuels, and many Europeans are reluctant to tie their power capacity to American willingness to supply enriched fuel unobtainable elsewhere. They feel their economic life would be too subject to possible changes in American attitudes, and that there would be restrictive requirements in accounting for the fuel consumed. Consequently there is great interest in spurring research on reactors which can burn plutonium resulting from the conversion of U–238 in natural uranium reactors. The British estimate they may be able to start using plutonium by 1966. If plutonium cannot be used successfully, the whole outlook for nuclear power in Europe will be changed. Cost calculations have assumed that the byproduct plutonium would have a high resale value and be useful for power as well as weapons.

At the present time, with so many problems still to solve, the Euratom plan must be labeled more a hope than a concrete plan for accomplishment. If 15 million kilowatts are to be ready in a decade, there should already be a series of sites picked out, lines of credit arranged, and contracts awarded to constructors. This has not come about. But this is not to say that nothing is being done in individual countries.

French progress has already been reviewed. Italy has carried on long negotiations with the United States for power reactors, and it was expected that Westinghouse would erect a large power station of the pressurized water type near Milan, plus a smaller one near Turin. The Turin reactor was to pave the way to a ship propulsion plant. But the discussion dropped out of the press, and after a long lapse, in November 1957, it was announced that the first big contract was awarded to a British consortium of eight firms for a Calder Hall type reactor with an electric power output of 200,000 kilowatts, the plant to cost $80 million. It will be erected north of Milan. By December 1957, a second award was made to the United States firm, Vitro Engineering Co. This is for a $45 million plant of 150,000 kilowatt capacity to be built near Anzio, with completion expected in 1962.

Germany has made a start in nuclear power, too, and is expected to make up for lost time to win a position of world prominence in this field of endeavor. German research includes work on thermonuclear power, but Germany also has more immediate plans, though many of them are tentative. One relatively small power reactor of 15,000 kilowatts capacity was contracted for in April 1957 by the Rheinisch-Westfalisches Elektrizitatswerk. The reactor core and controls were to be shipped by AMF Atomics in the United States and the construction was to be supervised by the British firm of Mitchell Engineering Ltd. It was to have been a boiling-w[illegible]lant. Unfortunately, rising costs fo[illegible]e withdrawal of AMF Atomics in October, and the whole scheme is now in doubt.

Belgium has been expected to make an early start in atomic-power development, under preferential arrangements with the United States and Britain because of past use by these countries of the uranium of the Belgian Congo. It was hoped to have the first small power reactor ready for the Brussels World Fair of 1958, but there was a public outcry against having one so soon near a densely populated area. Consequently, the plan was blocked by the Belgian Government. A full-scale plant for Belgium is also projected, but negotiations are not yet complete.

Dutch programs have not advanced beyond the experimental reactor stage.

This completes the review of the six countries which are now members of Euratom. The new organization will begin formal existence on January 1, 1958.

SCANDINAVIAN PROGRESS

Sweden is already an important developer of nuclear energy. Indicative of the high state of the art in that country is that serious discussion is given to the question of manufacturing nuclear weapons. However, one may feel about such weapons, this is a choice open only to countries with considerable talent and experience. Such problems, that is, whether to make weapons, were concerning the Swedish Ministry of Defense, according to its official report of late October 1957.

In any case, the necessity for a nuclear-power program is not doubted and a moderate sized but detailed program is mapped out and work is underway. The State power board has ordered two large reactors. The first, called Adam, to be completed in 1960, will deliver 75,000 kilowatts of heat. It is to be fueled with 8 tons of natural uranium, and use heavy water as coolant and moderator. The cost is estimated at $40 million. It will be located at Vasteras. The second reactor, called Eva, is to be ready in 1963, and will be considerably larger. It will be of the same type, but will provide 100,000 kilowatts of electricity.

In cooperation with the Atomic Energy Commission of Sweden, the Stockholm Electric Co. plans to open in 1960 a very similar reactor to the ones already described. The first is called R3a, will provide 76,000 kilowatts of heat, converted into 14,000 kilowatts of electricity. This will be followed in 1962 by a similar model R3b of the same size, and in 1963 by model R4, using 14 tons of uranium to generate 75,000 kilowatts of electricity. Still later in 1967, the atomic energy commission expects to complete a plant producing 300,000 kilowatts of electricity.

Not only is Sweden building a large tanker for American account which may carry a reactor made in the United States, but is working to develop reactors of its own for similar purposes.

Mention has already been made of similar Norwegian interest, stemming from the joint research effort being carried on with the Netherlands. In addition, the Norwegians expect to complete in 1958 a power reactor at Halden which will generate 5,000 kilowatts of electricity. It will use both natural uranium and enriched uranium from the United States, with heavy water used as moderator and coolant. Norway has long been a major producer of heavy water. The heavy water plant came under Allied attack during the German occupation. A first prototype ship reactor may be ready as early as 1959.

Finland is in the market for a power reactor from Britain or the United States. No other details are available.

LATIN AMERICAN PLANS

Many parts of Latin America are burdened with extremely high power costs, adding to the other difficulties which block rapid economic development. Nuclear power has been viewed by some as a panacea, but this is not the case. The smaller size nuclear plants suitable to most Latin America market themselves produce such expensive power that they are more likely to be a drain on the limited capital funds of these countris than to afford much help. In the longer run, of course, experience with experimental and prototype reactors can be important to the general technological development of many of these countries.

Concrete accomplishment to date has been limited, although there are a number of plans in the making. One of the first specific plans was that made by American & Foreign Power Co., announced in October 1955 to erect three 10,000-kilowatt stations, each in a different country where it has power holdings. Contracts were awarded for two of the plants in May 1956, one with General Electric, and one with North American Aviation. Since that time there has been no announcement as to which countries are to have these plants, for other negotiations conducted at governmental level are involved as well.

In August 1956, Brazil canceled its agreement with the United States for joint efforts for uranium searching. This was a victory for ultranationalists, and has not been calculated to speed other atomic cooperation. Brazil wants a 10,000-kilowatt research reactor to study thorium conversion.

By the middle of 1958, a research reactor is expected to be in operation in Venezuela. Cuba has similar plans.

Almost nothing is heard any more of the much publicized plan in Argentina to generate power from secret nuclear sources, supposedly involving cosmic rays. Dr. Richter fell into disrepute, and his early announcements have not materialized as real advances in practical power generation. The Argentine Government, however, is going ahead with plans to have built a conventional nuclear-power station to turn out 10,000 kilowatts of electricity.

The Martin Aircraft Co. has a contract with the Dominican Republic to build a pressurized water reactor with an electric output of 13,000 kilowatts at Ciudad Trujillo.

Meanwhile, most Latin American countries are participating to some degree in United States training programs looking forward to the day when they will have enough technicians of their own to do serious work in the field of nuclear energy.

CANADIAN PROGRESS

Canada has been a pioneer in the use of heavy water reactors. After developing three research reactors, the fourth one planned in Canada was anounced in January 1955 as a power producer, to be built near Chalk River, at Des Joaquims. This is a $15 million project, to produce 20,000 kilowatts of power. About one-third of the cost will be met by the Ontario Hydro Electric Power Commission, about $2 million will come from the Canadian General Electric Co., and the rest from Atomic Energy of Canada, Ltd., a government corporation. The completion goal was 1958 or 1959, but there have been some delays in the building of the NPD, as it is called, so now completion is not expected until 1960.

Nuclear power in Canada will have difficulty meeting the competition of very cheap hydroelectric power for many years. The Gordon Royal Commission on Canada's economic prospects reported in November 1957 that even as late as 1980, nuclear power is likely to account for only 2 percent of total Canadian power output. This, however, has not curbed research, even though there is no urgency for immediate construction of large capacity plants.

JAPANESE PROGRESS

Many elements in the Japanese public were emotionally opposed to the development of atomic power in Japan for reasons of previous military experience with this form of energy. However, the logic for use of nuclear energy is very compelling in a country with limited fuel resources. There are few good hydro sources left, and although most of the coal imports have been used for metallurgical purposes at the same time that other grades of coal were available for export, the not-too-distant future presents grave challenges if the Japanese economy is to serve the needs of the population.

On a trip to Japan in May 1955, the late John Jay Hopkins of General Dynamics urged a vast atomic development program for all free Asia. This was given prominence in Japanese newspapers at the time. In the months that followed, individual Japanese firms began to develop activities in the field of nuclear energy. Mitsubishi concerns have worked with Westinghouse, and the Mitsui combination has been associated with General Electric. The Sumitomo firms have been developing uranium ore properties. Hitachi has tested equipment for the production of heavy water. Nissan Chemical Industries is interested in the chemical separation of uranium from imported phosphate ore.

But perhaps the most obvious need for the Japanese is to stay in the forefront of countries developing nuclear-powered merchant ships. This progress has been described in another part of this report.

Early in 1956, the Japanese created the Japan Atomic Industrial Forum to bring together industrial information, and an atomic energy commission was created by the Government. The initial allotments of nuclear fuel from the United States have not been sufficient to meet Japanese desires, so efforts have been underway to find larger supplies of uranium.

By March of 1957, the Japanese Atomic Energy Commission had announced Japan's need as 3 million kilowatts by 1962, a program not far behind that of the British. There are, however, many questions as to how so large a program can be financed and equipped. Nine regional power companies in Japan that same month adopted a plan calling for construction by 1965–66 of 1 million kilowatts, and 10 million by a decade thereafter. This would seem a goal much more within grasp.

In May 1957 major meetings were held between United States and Japanese authorities to discuss atomic cooperation. Observers came from many other Asian and Pacific countries, but none

were invited from Europe. United States officials made a strong case for the pressurized water type power reactor as contrasted with the British gas cooled, natural uranium reactor. There were strong protests from the British about some of the comparisons which were drawn by the United States representatives.

The Japanese have now opened a well laid out nuclear research center on the coast about 40 miles north of Tokyo and have a series of research reactors planned. The first one went critical in September 1957. After the Japanese had listened to the pros and cons of the American and British reactor types, they apparently came to the decision to divide their orders for the present between the two countries. The first Calder Hall type reactor of 140,000 to 250,000 kilowatts is expected to be ordered during 1958–59. It is probable that pressurized and boiling water reactors also will be ordered, but details are lacking.

Impressive Japanese plans for surface and submarine nuclear ships have been described earlier in this report. They can be assessed in light of earlier Japanese achievements in building what were then the largest submarines, battleships, and aircraft carrier in the world. Future successes are to be expected.

OTHER ASIAN DEVELOPMENTS

India is the only other Asian nation with a sizable atomic program planned. Supplies of monazite sand are expected to yield thorium which can be bred into uranium 233, a fissionable isotope. As early as January 1955 Dr. B. H. Bhabha, director of the Indian Government's atomic energy establishment was talking up thermonuclear power as an ultimate means for supplying energy, and it was he who called world attention to thermonuclear power at Geneva in August 1955. Indian efforts to develop thermonuclear power are only at the level of theoretical research today.

The first uranium reactor in Asia started operating in Bombay in January 1957. The first three Indian reactors planned are all of the research type. A program for development of power on a large scale was made public in September 1957. The goal is 1 million kilowatts by 1962–65, not too different from the likely United States attainment in the same period. Under Indian conditions, conventional power costs about 12 mills per kilowatt-hour. The hope would be actually to cut power costs through nuclear energy. The concrete problem of power development for the first stage has as its major problem obtaining sufficient capital to carry it through—a danger faced by the overall economic development plan of India.

It was in March 1956 that the United States announced it planned to support a nuclear research center in the Philippines which would serve the associated countries of free Asia. But things tend to move slowly. By July 1957 the United States was still waiting to see whether the 16 countries of the Colombo plan wanted to participate in the Manila center, on which work had not yet started.

Manila itself may in time have a 60,000-kilowatt electric plant powered by a pressurized water reactor built by Westinghouse and Babcock & Wilcox for the Manila Electric Co.

The Chinese Nationalist Government on Formosa is negotiating for an 11,500-kilowatt plant from the United States.

THE REST OF THE WORLD

Only a scattering of other projects have come to public attention in other parts of the world. In Europe, Austria, Spain, and Portugal are negotiating for nuclear plants. The Portuguese plant is to be 100,000 kilowatts with a 1965 target date.

Israel in the Middle East wants a nuclear powerplant. In Africa there are three major proposals. One would be a big plant in the Belgian Congo built by Babcock & Wilcox. Another would be in southwest Africa at Walvis Bay, turning out 50,000 kilowatts for the Tsumeb Co., the third would be in the Union of South Africa, for power research purposes.

The Mount Isa Mines Pty. of Queensland, Australia, is also interested in having a nuclear power reactor for experimental purposes.

THERMONUCLEAR POWER

Just as atomic fission is keyed back to the theoretical Einstein formula for the equivalency of mass and energy, so can thermonuclear reactions be linked, too, to abstract study of the process by which the sun gives out its stream of heat and light.

Dr. Hans Bethe as early as 1945 explained that the time might come when controlled reactions of this type were possible. In England, Sir John Cockcroft made similar remarks in September 1954. Dr. Bhabha of India in January 1955 predicted the time was not too far distant when such techniques would be possible.

In April 1955 there was journalistic speculation that the approach under study was to add lithium to uranium reactors, as it was believed by many that hydrogen bombs were based upon some such combination. Nothing has been said since to bear out this supposition as a good route to controlled reactions. At the time, the Atomic Energy Commission would make no comment whatsoever as to any possible research on controlled thermonuclear reactions.

At the Geneva Conference in August 1955, it was Dr. Bhabha again who brought world attention to the possibilities, and predicted that within 20 years successful results might be attained.

The first official announcement by the United States that it was studying thermonuclear reactors was made in August 1955, as a result of questions about the Bhabha statement. Then it was revealed that Project Sherwood had been started in 1951, and was matched by similar research in Great Britain and the Soviet Union. The difficulties to be overcome are enormous. In order to sustain a reaction, a temperature of about 100 million degrees centigrade must somehow be confined so that it does not instantly vaporize its container, and then useful energy must be withdrawn. The benefits which would flow from such a reactor are also potentially very great. Fuel to last for many thousands of years is available in the heavy water mixed with the oceans. One part in 6,400 of water contains deuterium which might be fused into helium. A reactor would not present the problems of fission byproducts which are now a health hazard.

At the time of the announcement that the United States was undertaking such research, it was made clear that it might take 20 years or more to determine whether the concept was controllable. It was added that the time was much too early to make cost estimates for this new source of power, in light of the great uncertainties surrounding it.

Only slowly since that time have lines of investigation been unveiled. It is known that the thermonuclear process keeps the sun emitting energy, but there, tremendous forces of gravity contain the reaction. In the laboratory, one approach has been to try to pinch deuterium gas with electromagnetic forces holding it in the center of a tube so that the walls of the chamber will not be vaporized. In the summer of 1956 there was speculation that a thermonuclear reactor might have to be 30 times the size of the largest ocean liner and would generate 5 times as much electricity as the whole United States consumes at this time. This would certainly suggest an investment of enormous size and limited economic applicability, if the speculation had any substance.

Before the end of 1956, it was revealed that temperatures had been obtained fleetingly that were as high as 2 million degrees centigrade. Also by that time, a laboratory method of causing fusion at any temperature, was announced, but not with any expectation of early practical application. It has been found that a negative mu meson can act as a catalyst to pull together light and heavy hydrogen to form helium. But a meson of this type has a fleeting life of only one millionth of a second, so that it does not afford opportunities to provide a sustained reaction. The Russians have suggested there may be a longer lived catalyst to sustain such reactions and that it exists in some cosmic rays. They hope their high-energy research will discover this elusive key.

It may be possible, too, to convert the energy of a thermonuclear reactor directly into electricity through an interplay of the hydrogen plasma and the magnetic energy used to contain it.

Discussions of research on the high-temperature approach are very similar by scientists in the United States, Britain, and Russia. Pulsed discharges held in a narrow channel by magnetic lines of force have been brought to very high temperatures, but there are still great problems in keeping the magnetic bootle leakproof. British calculations are that a cubic meter of deuterium-tritium gas kept at 10 million degrees centigrade might give a continuous yield of 100,000 kilowatts of electric power, burning about 1 gram of fuel in each hour. Higher temperatures would yield even more power.

By the spring of 1957, the Atomic Energy Commission was of the opinion that thermonuclear power was beyond the stage of wishful thinking and almost certainly would yield to a sustained de-

velopment effort. A device called the Stellarator C is to be built at Princeton to test the principles of such reactors. It is hoped this will be more nearly leakproof than the A and B models which have been tested. Model C will be ready for experimentation in 1960 or 1961.

Even private industry has shown an interest in these developments at this early stage. In May 1957 the General Dynamics Corp. interested some 11 Texas utilities in joining with it to undertake a $10 million program of exploratory research. Texas is a part of the country unlikely to find ordinary fission reactors competitive for many years, and the new approach might potentially give that area more reason for interest in nuclear power. By June, the General Electric Co. also began its own research in this field. Sweden reported early success with thermonuclear reactors at Uppsala University.

Late in July the British announced they were completing equipment which would make possible the detection of fusion reactions if they occur as expected in the pinched, high temperature gases. That month, too, it was revealed that the Westinghouse Electric Corp. was studying high vaccuum components for thermonuclear reaction purposes. The San Diego Gas & Electric Co. joined the Texas Atomic Research Foundation which General Dynamics leads.

By October 1957 scientists in both Britain and the United States announced that experiments since midsummer suggested that controlled thermonuclear reactions had been achieved. Substantial numbers of neutrons were being yielded from the hot gases. At that time there was no proof, however, that the neutrons necessarily originated from fusion, as they might come from other sources under conditions of high temperature. It was also made clear that the input energy had to be much greater, still, than the output energy.

In November it was also announced that the Max Planck Association at Göttingen, West Germany, was engaged in research along similar lines. The first official statement in the House of Commons was made November 26, 1957, that a controlled thermonuclear reaction had been achieved. This was apparently accomplished in an apparatus named Zeta at about 5,000,000° C.

Speculation is that the next important progress reports will be forthcoming at the Second International Conference on Atomic Energy for Peaceful Uses at Geneva in 1958. There is still little indication that economic power from controlled fusion will be available in less than 20 to 25 years. This means that there is no argument for slowing the development or building of fission reactors. All currently programed will fulfill their purpose before the new fusion power is available.

The Stellarator C may turn out to be a device for producing a continuous flow of power but this does not mean in economic amounts. It is being designed and built by Allis-Chalmers and the Radio Corporation of America.

As best an outside observer can see the shape of things to come through the veil of secrecy, thermonuclear research is proceeding on schedule with enough progress being made to be reasonably confident of ultimate success. The greatest current risk is that the importance of continued investment in fission reactors will be minimized by those with funds to invest.

The real significance of fusion power, from the limited perspective of today, may only be that remote generations will not have to worry about exhaustion of fuel reserves or dangerous accumulations of radioactive wastes. It is now too early to assume that thermonuclear power will be cheaper than fission power which itself is only slowly coming down to the levels of regular power costs. However, fission power may be developed in such a way that its impact on the economics and lives, even of today's generations, might be tremendously significant. For this reason we cannot afford to approach research and development in this field on a casual nonpriority basis.

SUMMARY CONCLUSIONS

Each year that an effort is made to draft a report such as this, even cursory treatment of the subject yields a longer and longer product. The year 1957 has been one with setbacks and delays. But it is also the year in which five power-producing reactors began to operate in the United States and in which a number of countries announced very large programs for nuclear power production.

Although it is still only a hope, 1957 has been a year when encouraging progress reports on thermonuclear reactions have been made public. The enormity of the research effort still required in this and in other fields related to nuclear research should be clearly recognized.

The period immediately ahead will be filled with concrete manifestations of policy problems which up until now have largely been theoretical and anticipatory. It is hoped that this review will give some feeling of the spread of activities in the power development field alone; perspective helpful to the meeting of these policy problems. Other studies must cover related problems of radiation hazards, weapons development and control, and the needs for scientific training and research.

The United States continues to lead the world in the breadth of its nuclear efforts if not in the size of its program for producing quantities of nuclear power. More than pride requires that the work underway continue with our very best efforts.

ELECTION TO COMMITTEE

Mr. PRICE. Mr. Speaker, by direction of the Democratic conference, I offer a resolution (H. Res. 436) and ask for its immediate consideration.

The Clerk read the resolution, as follows:

Resolved, That JAMES B. FRAZIER, JR., of Tennessee, be, and he is hereby, elected a member of the standing Committee of the House of Representatives on Ways and Means.

The resolution was agreed to.

A motion to reconsider was laid on the table.

COMMITTEE ON BANKING AND CURRENCY

Mr. SPENCE. Mr. Speaker, I ask unanimous consent that the Committee on Banking and Currency may sit while the House is in session during general debate the rest of this week.

The SPEAKER. Is there objection to the request of the gentleman from Kentucky?

Mr. PATMAN. Reserving the right to object, Mr. Speaker, I am interrogating the members of the Federal Reserve Board now, and just started this morning. If I get through tomorrow and am not interrupted I would not object to this request if it is renewed tomorrow at noon, but now I shall be compelled to object because I have some matters on the floor tomorrow afternoon and shall have to be here, unless the gentleman will withhold his request until tomorrow. In that event I shall try to arrange my affairs so I can be there tomorrow afternoon. If he does not withhold his request at this time, I shall be compelled to object.

Mr. SPENCE. I am making this request not because I want to sit tomorrow afternoon but because I believe it is my duty. I want to treat the gentleman reasonably and with kindness, but I feel I ought to make this request.

Mr. PATMAN. I tried to get the chairman, the gentleman from Kentucky [Mr. SPENCE], to allow the committee to sit yesterday afternoon but he declined. If the gentleman wants to submit his request, all right, but I just cannot be there tomorrow afternoon.

The SPEAKER. Does the gentleman object or not?

Mr. PATMAN. I ask the chairman to withhold his request until tomorrow, in the hope that I shall be in a position not to object to it. Will the gentleman withhold his request?

Mr. SPENCE. Mr. Speaker, I feel it is my duty to make this request. I would like to accommodate the gentleman. I would rather that we would sit only in the mornings. But, the way things have been going, it is absolutely necessary that we expedite the hearings. If this committee is going to function and if it is going to perform the duties that the people expect it to perform, we have to work and we cannot listen to the objections of each individual who may have other engagements.

Therefore, Mr. Speaker, I ask unanimous consent that the committee may sit during such time as the House is engaged in general debate during the rest of the week.

The SPEAKER. Is there objection to the request of the gentleman from Kentucky?

Mr. PATMAN. Mr. Speaker, I object.

PROCUREMENT OF FUEL OIL FOR DEPARTMENT OF DEFENSE

Mr. BAILEY. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from West Virginia?

There was no objection.

Mr. BAILEY. Mr. Speaker, I have asked for this time for the purpose of

calling the attention of my colleagues to a wire which, I assume, most of you received yesterday from the independent and domestic oil refineries of this country protesting the possibility that an award would be made yesterday for fuel oil for the Department of Defense, particularly the Navy. On receipt of this wire, I contacted the Procurement Section of the Department of Defense. I learned the bids were opened yesterday for approximately $100 million worth of fuel, most of it for the Navy. They received 105 bids. They say it will be at least 2 months before they can analyze all of the bids and make an award. In this time the Members of Congress who have refineries in their districts should take advantage of the opportunity to insist that the Department of Defense make most of the awards to the industries and refineries within the continental United States and not to foreign refineries.

CRITICAL OVERSURPLUS

Mrs. SULLIVAN. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentlewoman from Missouri?

There was no objection.

Mrs. SULLIVAN. Mr. Speaker, late the other evening I received a telegram from an eastern petroleum corporation protesting Department of Defense policies in buying refined petroleum products in the Caribbean area. I assume all other Members of Congress received similar telegrams.

The thing which most interested me was a statement in this protest that there is not only no shortage of refined petroleum products in this country but that, in fact, there is a critical oversurplus of petroleum products in the United States.

Mr. Speaker, I remember the price of gasoline being increased last year presumably as the result of the shortage resulting from the seizure of Suez. Of course there was no shortage then. But now we are informed there is a critical oversurplus. Can we therefore now look for lower gasoline prices? If not, why not?

SELF-EXPRESSION ON BEHALF OF THE BLIND

Mr. ASHLEY. Mr. Speaker, I ask unanimous consent to extend my remarks at this point in the RECORD.

The SPEAKER. Is there objection to the request of the gentleman from Ohio?

There was no objection.

Mr. ASHLEY. Mr. Speaker, during the recent Congressional recess I was privileged to receive a delegation of constituents representing the Toledo Council of the Blind and to discuss with them the need of a law to safeguard the right of the blind to self-expression through organizations of the blind.

As a result of this and other discussions, I have prepared legislation which I am pleased to introduce today for this purpose. As you are aware, countless organizations of blind persons exist today throughout the country. They have been formed by the blind quite naturally to advance their own welfare and common interests and provide to our blind citizens an opportunity for collective self-expression—an opportunity to voice their views on Government-financed programs for their aid and rehabilitation. It is important that these views be heard and considered.

Unfortunately, however, it appears that the freedom that each of our blind citizens should have to join or not to join organizations of the blind has been prejudiced by certain professional workers who through official action have exerted undue control and influence over the lives and conduct of their sightless clients. It is important that our blind citizens be protected against this kind of authority to interfere with their freedom of self-expression through organizations of the blind.

The bill which I am introducing is similar to that offered by Senator JOHN M. KENNEDY and would do two things. It would direct the Secretary of the Department of Health, Education, and Welfare to consult and advise with representatives of organizations of the blind in his formulation and administration of programs for the blind and encourage State agencies to do likewise.

Secondly, the bill requires that no Federal officer or employee concerned with the administration of programs for the blind shall exert the influence of his office against the right of blind persons to join organizations of the blind and, further, the bill shall condition Federal grants to State programs for the blind so that employees in those programs will refrain from exerting the influence of their office against organizations of the blind.

I earnestly commend this meritorious legislation to the prompt and favorable consideration of my colleagues.

THE LATE HONORABLE AUGUSTINE B. KELLEY

Mr. BARDEN. Mr. Speaker, I ask unanimous consent to extend my remarks at this point in the RECORD and include a resolution adopted by the Committee on Education and Labor eulogizing a late member of the committee.

The SPEAKER. Is there objection to the request of the gentleman from North Carolina?

There was no objection.

Mr. BARDEN. Mr. Speaker, on January 9, 1958, at 10 o'clock, Mr. Kelley's colleagues on the Committee on Education and Labor met in open session and unanimously adopted a resolution testifying to the sorrow of his committee colleagues over Mr. Kelley's passing and testifying also to the outstanding record of public service achieved by this noble statesman. At the direction of the Committee on Education and Labor I include that resolution as a part of my remarks at this point:

Whereas the Honorable Augustine B. Kelley, of Greensburg, Pa., Representative of the 21st Congressional District of Pennsylvania, served with eminent distinction and great patriotism as a Member of the United States House of Representatives continuously since January 3, 1941, as a member of the House Committee on Education and Labor continuously since that time, in addition to other important capacities, and as the ranking member of said House Committee on Education and Labor during the 81st, 82d, 84th, and 85th Congresses; and

Whereas in the fields of education, and national and international labor, the Honorable Augustine B. Kelley acquitted his duties and responsibilities to the citizens of his State of Pennsylvania and to the citizens of his Nation with statesmanship, courage, wisdom, and foresight so as to render his public service an inspiring example to his colleagues in the United States Congress, to his countrymen, and to the causes of peace and freedom in behalf of all men: Therefore be it

Resolved by the membership of the House Committee on Education and Labor assembled, That said committee membership express its profound sorrow over the untimely passing of their beloved colleague on November 20, 1957, and that the Committee on Education and Labor when it adjourns today shall adjourn in reverence to his memory; and be it further

Resolved by the membership of the House Committee on Education and Labor assembled, That the afore-stated resolution be printed in the CONGRESSIONAL RECORD and a copy of said resolution be sent to the beloved family of our late distinguished colleague, the Honorable Augustine B. Kelley of Greensburg, Pa.

Approved and adopted this 9th day of January 1958, by the unanimous vote of the membership of the House Committee on Education and Labor.

Attest:

GRAHAM A. BARDEN,
Chairman, Education and Labor Committee.
RALPH W. GWYNN,
Member of Congress.

ACADEMY APPOINTMENTS

Mr. MAY. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from Connecticut?

There was no objection.

Mr. MAY. Mr. Speaker, at this time each year the Members of the United States Senate and the United States House of Representatives, as well as other nominating authorities, are preparing to submit their nominations for the young men who will become the future leaders of our Nation's Military Establishment.

This has always been of great importance in the past. The threat to our security and way of life has grown rapidly over the last few years and the responsibility which we, as Members of Congress, have for providing our military leadership has grown proportionately.

As a new Member of Congress, going through the procedure of making my first nominations, I was shocked to learn that many of these young men receive appointment to our service academies without having been explicitly interviewed by the nominating authority to determine their leadership qualifications, character, and background.

At present, it is not possible for any young man to pursue a course of study in the service academies without having the necessary mental acumen. This is as

it should be, but our future officers must have far more than mental ability. Sturdiness of character and background are certainly important, but most of all, a young man should be possessed of the factors which determine leadership ability.

It is my considered opinion that as a nation, more dependent upon strong leadership now than ever, we can no longer afford the rather haphazard manner in which our cadets are chosen. At this time, I intend to propose that the Congress of the United States enact legislation to require that the Members of Congress certify to the Secretary of the service involved that they have personally interviewed each candidate and have taken every possible step to ascertain the individual's leadership qualifications, character, and background.

As an alternative, the bill would permit the nominating authority to set up a board of not less than three members, drawn from citizens of standing within the Member's district, who would interview the prospective cadets and report the results to the Member of Congress.

A second section of the bill would require that physical examinations to determine whether or not the candidate is physically capable of entering a service academy should be given prior to other tests required. I am of the opinion that it is a waste of time and money to have the prospective cadets go through a series of tests and interviews only to find that, in the last analysis, they are physically incapable of attending a service academy. The facilities of the service academies are limited, the training is a costly process, and, above all, our Nation requires officer material of the highest caliber. For these three reasons, I believe that the necessity for this legislation is indeed urgent.

RESERVE MILITARY COMPONENTS

Mr. CANFIELD. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from New Jersey?

There was no objection.

Mr. CANFIELD. Mr. Speaker, I rise to add to the remarks just made by the distinguished gentleman from Louisiana [Mr. BROOKS] regarding budget action on our military reserve components.

The United States Coast Guard and its Reserve are military components under law. In time of peace they come under the jurisdiction of the Treasury Department. In time of war they are immediately transferred to the Navy.

The accent here today is on defense and very properly so. Federal agencies outside the Defense Establishment are being requested by the administration through the Director of the Budget to make contributions toward defense and many can. However, the Treasury's contribution should not be made by subtracting millions from Coast Guard appropriations, notably that of the Coast Guard Reserve, as indicated by the budget announced this week.

I do not know when adequate protection of our ports and harbors has been more important and I am at a loss to understand the Treasury action coming at a time when our military leaders are so concerned about the dangers being posed by the ever-increasing fleet of Soviet submarines. The Coast Guard is extremely important in this picture even as it is in carrying out its mission of seeing that no unorthodox weapons come near our shores in foreign ships.

At the recent NATO Parliamentary Conference held in Paris, real concern was expressed relative to the Soviet's submarine developments and I do not propose to help meet this threat by supporting a weaker Coast Guard.

CONSENT AND PRIVATE CALENDARS

Mr. McCORMACK. Mr. Speaker, I ask unanimous consent that the call of the Consent Calendar on Monday next and also the call of the Private Calendar on Tuesday next may be dispensed with.

The SPEAKER. Is there objection to the request of the gentleman from Massachusetts?

There was no objection.

AUTHORIZING THE SECRETARY OF THE AIR FORCE TO ESTABLISH AND DEVELOP CERTAIN INSTALLATIONS FOR NATIONAL SECURITY

Mr. COLMER, from the Committee on Rules, reported the following privileged resolution (H. Res. 437, Rept. No. 1280), which was referred to the House Calendar and ordered to be printed:

Resolved, That upon the adoption of this resolution it shall be in order to move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H. R. 9739) to authorize the Secretary of the Air Force to establish and develop certain installations for the national security, and for other purposes. After general debate, which shall be confined to the bill, and shall continue not to exceed 2 hours, to be equally divided and controlled by the chairman and ranking minority member of the Committee on Armed Services, the bill shall be read for amendment under the 5-minute rule. It shall be in order to consider without the intervention of any point of order the substitute amendment recommended by the Committee on Armed Services now in the bill and such substitute for the purpose of amendment shall be considered under the 5-minute rule as an original bill. At the conclusion of such consideration the Committee shall rise and report the bill to the House with such amendments as may have been adopted, and the previous question shall be considered as ordered on the bill and amendments thereto to final passage without intervening motion except one motion to recommit with or without instructions.

Mr. COLMER. Mr. Speaker, I call up House Resolution 437 and ask for its immediate consideration.

The Clerk read the resolution.

Mr. COLMER. Mr. Speaker, I yield the customary 30 minutes to the distinguished gentleman from Illinois [Mr. ALLEN] and, pending that, I yield myself such time as I may consume.

Mr. Speaker, back in the fall, when the Congress was not in session, the Russians launched a couple of satellites. I believe the Russian word is "sputnik." Mr. Speaker, I make this observation because, as one who is just a humble, ordinary variety Member of Congress, I have certain definite impressions about what has happened and what might happen as the result of the launching of these satellites. Certainly, Mr. Speaker, I do not think that this is an occasion for the American people to become hysterical or for the Congress to start charging off in all directions to try to meet that situation.

I am sure that if we are realistic we must take certain things into consideration and approach this matter in a sound, sane, and prudent manner. Yes, I grant you that a challenge has been posed to the free world by the launching of this gadget, but I think it is a challenge that can be met and I do not think it is an overwhelming challenge.

Let us view this situation, if we may, calmly for a few moments. I certainly hope that this Congress, the representatives of the people, will approach this challenge in a sane, sound, and prudent manner.

Let us go back a minute. Are we saying to ourselves and to the world that a backward nation, which 20 years ago was regarded as a second- or third-rate power in the world, has suddenly, overnight achieved a monopoly in the world of science and has driven America and the peoples of the Free World off the map? Some of us have been in Russia. I know it was my privilege in 1945, immediately after the cessation of hostilities, to be in Russia and my impression then definitely was that it was a backward nation, that they were lacking in the know-how, that they were lacking what we call in football parlance in depth of mechanics and scientists and the people who are necessary to perform these miracles that we read so much about now.

I also discovered in 1945 when I was in Germany, immediately after the cessation of hostilities, that the Russians were carting away the factories where scientific gadgets were made, they were kidnaping the German scientists and taking them back of the Iron Curtain, because they did not know then that we, under the appeasement policy, were going to submit to their retaining part of the German homeland.

Mr. Speaker, will you permit me to make this observation? The chief of the staff of my committee at that time was one Marion Folsom who is now a member of the President's Cabinet. We had borrowed him from the Eastman Kodak Corp. to head up the staff of this committee. Naturally, he was interested in what had happened to the Eastman Kodak factory in Germany, so we went to that factory and we found that the Russians were carting away this American property and taking it behind the Iron Curtain.

But the old superintendent, the head of that factory, told us with tears in his eyes that they were not only taking the factory but they were taking the skilled personnel from that factory, the men

with the scientific know-how, and carting them back also behind the curtain. Remember that the Eastman Kodak plant was one of the factories that were being utilized by the Germans in the advancement they were making in these missiles and rockets and things of like kind.

I do not claim that Russia is highly advanced or is ahead of us solely because they captured these German scientists or because Germany was ahead of all the world in ballistic missiles, but I do claim—and if someone knows differently I should like to be so advised—that the Russians have utilized that capacity, these men and equipment, to accelerate their development of intercontinental and intermediate missiles and the sputnik gadgets. I maintain, in my humble judgment, at least, that man for man, scientist for scientist, technician for technician, America is still ahead of Russia in the overall field.

We have spent hundreds of millions of dollars in building up a great Air Force, a great striking power. Are we to believe now that because these gadgets have been sent up into the air, these gadgets which I have been told have no military value as such, this great Air Force of ours is powerless, and that this Nation is at the mercy of Russia? I just cannot believe that. It is difficult for me to believe that a nation which less than two decades ago was a backward nation, which is now operated and run by a group of dictators and where the populace are virtually slaves, has overnight become the greatest power on earth.

Yes; we must meet this problem. We must not only catch up with Russia but we should excel them in the field of missiles and I think we will do it. But the point I am trying to make is that this is no time for hysteria, this is no time for charging off in all directions.

I repeat what I have said often upon this floor, Russia wants war no more than we want war. Nobody can win a war. Russia is still following the Lenin doctrine, the blueprint of their great idol, Lenin, that the way to destroy America is to destroy its economy and then take over in the ensuing chaos and confusion. I am more apprehensive of this gadget inflation in this country than I am about a Russian attack. This is but another part of the cold war, and we must not permit ourselves to lose our sense of values.

Mr. Speaker, this bill is brought to us by our great Committee on Armed Services. There is nothing new about this, as I understand it. The bill would authorize $29,670,000 for a semiautomatic ground environment, that is known as SAGE. It would authorize $189 million for the ballistic missiles direction system; $24,600,000 for alert facilities for our strategic air command forces; $112,400,000 for ballistic missiles; $194 million for dispersal of Strategic Air Command forces; or a total of $549,670,000.

This is an authorization for facilities for a continuation of a program which was started heretofore. I am sure it is necessary. I propose to go along with it. I merely want to reiterate that I do not propose to be stampeded, and I hope the Congress and the American people will not be stampeded into hasty and unwise actions which might well destroy the economy of this country.

There are a number of other things that are affected by this hysteria including our educational system, which I shall not discuss at this time; but which must not become a victim to unwise innovations.

Mr. Speaker, in the final analysis, it is my conviction and my distinguished friend, the great chairman of the Committee on Armed Services, has reassured the Committee on Rules this morning, that because of the great striking power, the great retaliatory power that we now possess in this country, the Russian masters dare not put it to the test.

RESIGNATION FROM COMMITTEES

The SPEAKER laid before the House the following resignation from a committee:

JANUARY 14, 1958.

The Honorable SAM RAYBURN,
Speaker of the House,
House of Representatives,
Washington, D. C.

DEAR MR. SPEAKER: Having been elected a member of the House Ways and Means Committee, I hereby tender my resignation as a member of the Un-American Activities Committee of the House of Representatives.

Very respectfully,

JAMES B. FRAZIER, Jr.

The SPEAKER. Without objection, the resignation will be accepted.

There was no objection.

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There was no objection.

AUTHORIZING THE SECRETARY OF THE AIR FORCE TO ESTABLISH AND DEVELOP CERTAIN INSTALLATIONS FOR NATIONAL SECURITY

Mr. ALLEN of Illinois. Mr. Speaker, I reserve the balance of my time.

Mr. COLMER. Mr. Speaker, I yield 7 minutes to the gentleman from Indiana [Mr. MADDEN].

Mr. MADDEN. Mr. Speaker, I listened attentively to the statements made by my colleague on the Committee on Rules, the gentleman from Mississippi [Mr. COLMER]. In essence, I agree with what he has said regarding the publicity and propaganda buildup which called the other day for a $74,900,000,000 budget.

No doubt this Congress must go along with every practical method and means of protecting our country; nevertheless we must not be pressured into a frenzy to appropriate billions and ride off in all directions, as the gentleman from Mississippi [Mr. COLMER] stated, on the expenditure of billions of dollars on defense projects that possibly in 4 or 5 years will become obsolete. Having been a member of two committees that held hearings on Communist aggression in this country and abroad, I firmly believe there is no danger of Mr. Khrushchev starting a war within the new few years. For that reason I believe this 2d session of the 85th Congress had better be on its guard in considering legislation expending billions indiscriminately because of propaganda created over the country on account of sputnik.

I was alarmed more than anything else the other day when I read a syndicated article to the effect that this Congress had better cut down on some of the domestic services that our Government renders the people of America and concentrate on this sputnik threat. Among other things mentioned in this article was that we should cut down on some of these services rendered to millions of people in this country such as veterans' benefits and services, social-security expansion, welfare, medical aid, labor problems, farm economy, and so forth. This article was nothing more than just a forerunner of additional propaganda for this Congress to reduce expenditures on services for our economic welfare that millions of people in America need, and need badly.

The gentleman from Mississippi [Mr. COLMER] stated that one of the great threats is inflation, and I agree. General unemployment over the Nation is a problem as serious as inflation, defense, and the rising cost of living. I am going to mention the unemployment plight of just one great industry. There are over 400,000 steelworkers unemployed in America. There are 10,000 total, including steelworkers, unemployed in the Calumet region in Indiana. Bear in mind further that this figure of 400,000 unemployed steelworkers over the Nation does not include those who are working only 3 and 4 days a week.

The basic industry in America is steel. If it is strangled through unemployment it affects everybody in America. No doubt, depression in agriculture and other industries has finally reflected in the lack of demand for steel products.

The gentleman from Michigan [Mr. MACHROWICZ] told me this morning that in Detroit there are 260,000 unemployed. Last spring there were only 160,000 unemployed. Bear in mind again that these figures do include men who are working 2, 3, and 4 days a week. Imagine what that 2, 3, and 4 days' work a week does to a family budget when they are buying an automobile, a home, a television, and so forth, on credit payments.

This morning's papers said unemployment today is 3,800,000. When we add the 2-, 3-, and 4-day a week workers the figure mounts to many more millions. A year or two ago when one mentioned unemployment we were accused of preaching doom and gloom. Those days are over. The depression problem is in the lap of this Congress and we must

act. Unemployment is the main problem that we must get excited about in this country, including sputnik and inflation.

Mr. Speaker, I am very much in favor of this legislation the Armed Services Committee has reported out today. In this coming session of Congress we are going to depend upon the chairman and members of the Armed Services Committee to hold extended hearings on requests by the Defense Department for billions of dollars with the hope that only the essential and necessary money is spent.

We must keep our defenses up; yes, but we must depend upon the experience and the good judgment of the members of the Committee on Armed Services to fine-comb every appropriation that is presented by our Department of Defense to avoid unexcusable waste in these vast expenditures that are outlined in the President's $74 billion budget.

Mr. COLMER. Mr. Speaker, I yield 1 minute to the gentleman from California [Mr. HOLIFIELD].

Mr. HOLIFIELD. Mr. Speaker, I take this 1 minute to indicate that I am 100 percent in favor of this legislation and intend to vote for it, of course. I should like to announce, however, that I have a special order for tomorrow at which time I intend to speak on the subject which is so much in the public mind today, namely the outer-space problem. I invite my colleagues to stay on the floor if they can and listen to my remarks.

I intend to devote some time to the consideration of an unusual type of underwater nuclear-propelled craft and also will speak of some of the possibilities of outer-space vehicles, also propelled by nuclear energy.

Mr. COLMER. Mr. Speaker, I move the previous question on the resolution.

The previous question was ordered.

The SPEAKER. The question is on the resolution.

The resolution was agreed to.

Mr. VINSON. Mr. Speaker, I move that the House resolve itself into the Committee of the Whole House on the State of the Union for the consideration of the bill (H. R. 9739) to authorize the Secretary of the Air Force to establish and develop certain installations for the national security, and for other purposes.

The motion was agreed to.

Accordingly, the House resolved itself into the Committee of the Whole House on the State of the Union for the consideration of the bill H. R. 9739, with Mr. SIKES in the chair.

The Clerk read the title of the bill.

By unanimous consent, the first reading of the bill was dispensed with.

Mr. VINSON. Mr. Chairman, I yield myself 25 minutes.

Mr. Chairman, in these critical days, it is indeed appropriate that the first legislative proposal that comes before the House at the very start of the 2d session of the 85th Congress is one that relates to the defense of our country. We all recognize that the paramount duty of Government is self-preservation. The sole purpose of this bill is to strengthen the defense of the Nation.

Mr. Chairman, H. R. 9739, which is a military construction bill for the Air Force, is emergency legislation.

The reason why it is an emergency is twofold: First, the items in the bill are in themselves of the highest priority, and in the second place, a prompt approval of this bill now will save up to 1 year in construction time.

If the construction in this bill had come up, not as a supplement to the fiscal year 1958 program, but rather as a part of the regular fiscal year 1959 program, we would find ourselves 1 year behind in our construction, at a time when we do not have 1 year to spare.

THE BILL IS INTRODUCED

The bill as introduced set out the construction to be performed only in the most general categories. No indication was given as to the specific locations where the construction would be performed nor with respect to the cost of the construction at each of these locations.

The backup books which were before the committee during the hearing did, of course, set out this detailed information. These books, however, could not be given general publication because they also contained some highly classified information.

The committee felt that as much information as is possible should be afforded Members of Congress in order that the consideration of the bill on the floor would be on the basis of full understanding of what the bill would do.

It is true that the bill contains some authority for which details are not given on the face of the bill; this, however, is made necessary by security considerations.

Even with respect to these items, I will attempt to tell everything that I can within the bounds of security.

WHAT THE BILL DOES

What will the bill do? It will do five things, each one directed toward our defense and our capability to retaliate if attacked.

The bill would grant authority in the amount of $549,670,000; $29 million of this would be for SAGE; $189 million for a ballistic-missile detection system; $112,400,000 for ballistic-missile sites; $24,600,000 for SAC alert facilities; $194 million for the dispersal of SAC. Now this totals $549,670,000.

Now I am going to attempt to describe each of these portions of the bill so that they will be understandable to the House and the House will realize their importance.

SAGE

SAGE—which means semiautomatic ground environment, is a system whereby we can detect the approach of enemy bombers and take action to destroy them.

Now, how does it work. As you know, we have airborne early warning aircraft. We have picket ships far out in the ocean, Texas Towers close to our shores, and radar installations on the ground along all of our boundaries. This system even gets information from weather station.

All of these various radars are tied together in such fashion that they can feed information as to speed, direction, height, and how far away are enemy planes which are approaching our country.

Now all of this information is fed into the SAGE system. Now, that means that at 36 centers throughout the United States, there will be great electronic computers. As the information is fed into these computers, the computers make complicated calculations and the computers tell whether missiles or planes should be used to repel the attack, and also, what bases should get their planes or missiles off to the attack.

You will note that I describe the system as semiautomatic. This means that the machines themselves don't send these planes or missiles off, but, rather, provide information to the various commanders throughout the United States who in turn do the actual direction of the battle.

An essential part of the whole system are leased communication lines which are, to all intents and purposes, telephone lines. Some of the information will come over these lines as an ordinary telephone conversation while other information will come over in the manner of a teletype.

Now, where are these various SAGE centers. As I say, the 36 of them are spread throughout the United States in 29 locations. For example, to mention only a few, they are located at Syracuse, N. Y.; Marquette, Mich.; Grand Forks, N. Dak.; Great Falls, Mont.; and Los Angeles, Calif.

In each of these installations, there will be about 500 personnel. These men will be stationed there all the time and the center will be on 24-hour alert.

One more word about SAGE. When this matter was before the House previously, it was told that the entire SAGE system would cost over $1 billion and that the annual operating cost would be $400 million. The House was also told that the annual cost of leased communications would be about $240 million, this $240 million representing a portion of the $400 million. These figures have since been revised by the Department of Defense and today the total cost of the system is estimated to be $1,945,000,000—almost $2 billion—and the annual operating cost $440 million, with the leased communications to cost approximately $150 million annually. The $29 million in this bill is another step toward the completion of this system, and when the work authorized by this 29 million is completed, the whole system will be well on the way to completion.

So, that is SAGE, and although it is a highly complex system, I hope I have given a reasonable description of how it works.

BALLISTIC MISSILE DETECTION

The bill contains authority in the amount of $189 million for the ballistic missile detection system. I would like to make it clear that this system is quite separate from the SAGE system which I have just described. The two systems, of course, will be used in conjunction. They will provide for the early warning essential to the quick reaction of our

retaliatory forces, SAC, as well as providing warning for our other military and civilian defense organizations.

The Air Force informed the committee that it has based its offense and defense on a capability to react within 15 minutes after warning. This points up the great importance of this portion of the bill.

Now, it of course is impossible to speak on this floor in detail with respect to this detection system. Suffice it to say that the $189 million will be devoted to construction in certain areas, which I cannot disclose, that will permit the installation of equipment that will detect and give warning of an attack with ballistic missiles.

The committee was assured that equipment has been developed which will do exactly this. It will detect a missile as it rises above the horizon and will afford a sufficient period of time to permit elements of our Strategic Air Command to become airborne—that is to get off of the ground. It should be understood that the purpose of getting SAC into the air is not to protect them from the missile or missiles but rather to have them in a position and on the way where they can make a devastating retaliatory attack.

BALLISTIC MISSILES

The next part of the bill relates to ballistic missiles in the amount of $112,400,000.

Now, I want to make clear that none of this money is for the missiles themselves or for their development. The $112 million will be devoted entirely to the construction of operational bases for the ballistic missiles. Some of it will go to Francis E. Warren Air Force Base in Wyoming. The House will recall that this base and its proposed use as a missile base was the subject of a press release by the Air Force a few weeks ago.

Another part of this sum will go toward the provision of additional facilities at Camp Cooke Air Force Base in California. And still another part will go for initial work at another location which as yet has not been definitely determined.

ALERT AND DISPERSAL OF STRATEGIC AIR COMMAND FORCES

The fourth element of the bill is the alert facilities for the Strategic Air Command in the amount of $24,600,000.

In this connection, let me refer to the President's statement of last week before this House when he said:

> We must protect and disperse our striking forces and increase their readiness for instant reaction. This means more base facilities and more standby crews.

I want to draw particular attention to that part of the President's statement which says we need to "increase their readiness for instant reaction."

SAC is alert today. But let us say it can be and should be even more alert. This can be effected by providing certain facilities which will permit additional numbers of our strategic bombers to get into the air with an absolute minimum of delay. It is to this end that this element of the bill is directed. The particular construction involved varies to some extent from base to base but, in general, the authority will permit the construction of additional operational apron, facilities for the ready crews, and utilities.

I believe we all have accepted the idea of dispersing SAC as widely as possible throughout the country. There are several reasons why this dispersal is necessary. First, with the airplanes spread over a large number of bases, the enemy has that many more targets which he must hit in order to knock us out.

Second, the more these bombers are dispersed, the more runway space there is available for them to take off, and the quicker, therefore, they can get into the air. There is nothing unusual about the construction items involved in this case. Generally, they provide for longer, wider, and safer runways at a number of existing Air Force bases. The placing of a squadron of bombers on a base generates other requirements, too. The additional crews must have some additional facilities. But all in all, the selection of existing bases cuts down to a very great extent the money which would have to be expended were new bases constructed.

Originally, there were 11 SAC home bases. Today the term home base has little meaning. The reason for this is that SAC is or, in the very near future, will be dispersed over 27 different bases with not more than 1 squadron of 15 planes on each base.

This bill will authorize the dispersal of 6 more squadrons for a total of 33. One other point of interest is the fact that when the squadron is dispersed, it takes with it the tankers necessary to keep it flying.

SAC ALERT FACILITIES

With respect to our alert facilities for SAC, I would like to say this. All of our warning systems are useless, unless we get SAC off the ground after the warning has been received.

After the warning comes the reaction. And the reaction time permitted us is very, very short. We must be able to get one-third of the SAC bomber forces off the ground within 15 minutes. If we are going to do this, we must have the bombers so positioned on the various bases that they can take off with no delay whatsoever.

Stated simply, the construction in this bill for alert facilities will permit the construction of parking stubs to provide for a quick run to the takeoff end of the runway. We must have a mess facility, and we must have some troop housing for these men who are on 24-hour alert.

Understand, these B–52's that are on alert will be separated from the main part of the base and will constitute, in a sense, a small base all by themselves. In other words, these alert B–52 aircraft will be self-sufficient and ready to go at a moment's notice.

TANKER RELOCATION

Although the bill does not divide the alert facilities, the dispersal facilities, and the tanker relocation facilities, these really are three separate elements of the bill. I have dealt with the dispersal and with the alert facilities. The last of these is the relocation of some of our tanker aircraft.

This is not to be confused with the tankers which are a permanent part of a B–52 squadron. These are tankers which will be located on bases which may or may not have any B–52's on the base.

These tankers will be located in the northern areas where they can rendezvous with SAC bombers coming from any part of the United States and refuel them in flight.

This bill will provide facilities at 8 existing Air Force bases which will permit relocation of 9 tanker squadrons. Other tanker squadrons will be located under authority to be requested in the future.

Mr. Chairman, I have discussed the purpose of the bill and I have told in such detail as I can what the bill will authorize in the way of construction. Although there have been 30 bills referred to the Armed Services Committee since the opening day of this session, this is the first bill which the committee has heard. I felt, and the committee agreed with me, that this represents a piece of legislation which admits of no delay. It is a bill which is entirely consistent with the thinking of the President, the thinking of the Armed Services Committee, and, I am sure, the thinking of every Member of this House.

I do not believe I can say anything further that will help toward the more complete understanding of the bill, but I and all members of the committee stand ready to answer any questions which security considerations will permit to be answered on the floor of the House.

Mr. GROSS. Mr. Chairman, will the gentleman yield?

Mr. VINSON. I yield to the gentleman with pleasure.

Mr. GROSS. Will the gentleman address himself to the language found on page 9, if he has not done so already? Unfortunately, I did not hear the first part of the gentleman's statement. It seems that the new Secretary of the Air Force has broad authority in the awarding of contracts and in the establishment of installations. I refer to the language in section 2, on page 9. Is there necessity for that surrender of authority?

Mr. VINSON. The gentleman refers to the language of section 2, providing that the Secretary of the Air Force may proceed to establish or develop installations and facilities under this act without regard to certain sections of the revised statutes and so on. I would say to the gentleman that that is the very language which has been in every public works bill for many years to my certain knowledge.

Mr. GROSS. This is language that has been in every public works bill?

Mr. VINSON. This is a public works bill. That is all it is really. It is nothing in the world but public works.

Mr. GROSS. This language confers broad authority on the Secretary of the Air Force in the awarding of contracts.

Mr. VINSON. Other Secretaries have had this identical authority. It is the very same language that is contained in every one of the public works bills.

Mr. GROSS. Both at home and abroad?

Mr. VINSON. This is the same language which was in the bill a year ago,

the year before last and for the last 5 or 6 or 10 years, and it is sound.

Mr. GROSS. I realize the gentleman has always been very careful in delegating to any Secretary of the Air Force or any other Secretary the authority to award contracts without competitive bids.

Mr. VINSON. I am glad the gentleman raised that question. But, I must say 97 percent of all contracts for public works are under competitive bidding. In only 3 percent of the cases is it found necessary to make contracts by negotiations. I would say I would wish that were true with reference to all of the contracts of the Department of Defense. The bulk of the business of the Department of Defense is done by negotiation or at least somewhat more than 50 percent of it is, but in this field 97 percent of all contracts are under competitive bidding.

I am hoping we will soon have a bill here dealing with this subject matter and that we will pass legislation restricting negotiated contracts. But there are certain types of construction contracts where it may be to the interest of the Government to make negotiated contracts rather than public-bid contracts. It might possibly be true with reference to the facilities for the ballistic-missile detection, because nobody knows very much about all the phases of that problem.

Mr. LIPSCOMB. Mr. Chairman, will the gentleman yield?

Mr. VINSON. I yield.

Mr. LIPSCOMB. Would the gentleman explain the necessity for section 4 on page 10 of the bill in regard to exemption of the auditing of books by the Comptroller General?

Mr. VINSON. It has relation only to foreign contracts, and you will note the President must find an alternative method.

Mr. LIPSCOMB. Is it the anticipation of the committee that audits cannot be done within 3 years and that is why they have put in this provision?

Mr. VINSON. In the matter of foreign contracts, it cannot always be done within a 3-year period, and there are also local customs and practices to be considered.

Mr. LIPSCOMB. There is no indication by this section of the bill that the audit should not be as thorough as usual, or that the audit should not be done, is there?

Mr. VINSON. Not at all. I may say also that this is the same kind of language that goes in every public-works bill.

Mr. KILDAY. If the gentleman from Georgia will yield——

Mr. VINSON. I yield to the gentleman from Texas.

Mr. KILDAY. I may point out that this relates to overseas contracts. It has been found in our dealing with foreign contractors that it is practically impossible to get them to maintain their books over a period of 3 years. The committee, therefore, provides this alternative method. Foreign contractors for the most part insist on following their customary procedure with reference to books, and this provides an alternate method.

The CHAIRMAN. The time of the gentleman from Georgia has expired.

Mr. VINSON. Mr. Chairman, I yield myself 5 additional minutes.

Mr. ROGERS of Colorado. Mr. Chairman, will the gentleman yield?

Mr. VINSON. I yield.

Mr. ROGERS of Colorado. The committee report at the top of page 4 states that the surfacing of roads at the Air Force Academy is not included on the basis that it is not an urgent item. That was on the understanding that we would not have an opportunity to complete the Academy this fall.

Mr. VINSON. When I received this bill and saw that item in it, I realized it should not be in this bill.

It does not fall within the classification of emergency. It should never have been put in this particular bill. The committee unanimously struck it out.

At the proper time when the public works bill comes in such an item could properly be carried, but not in this bill seeking a supplemental authorization on emergency matters this fiscal year.

Mr. ROGERS of Colorado. I wanted an explanation, and I assume that when the public works bill comes in it will be included.

Mr. VINSON. The statement of the gentleman from Colorado was well made.

Mr. ROGERS of Colorado. Mr. Chairman, will the gentleman yield further?

Mr. VINSON. I yield.

Mr. ROGERS of Colorado. Then I understand it will come up in the regular order.

Mr. VINSON. That is right, in the regular order.

Mr. ROGERS of Colorado. Take it up and put it in?

Mr. VINSON. I do not know about that, because there are a great many things that will be considered in the investigation now being made by the Committee on the Armed Services and there doubtless will be something in reference to the enormous cost of building the great Air Academy.

Mr. MEADER. Mr. Chairman, will the gentleman yield.

Mr. VINSON. I yield to the gentleman from Michigan.

Mr. MEADER. In colloquy with the gentleman from Iowa, the gentleman from Georgia said, as I recall, that 97 percent of the defense contracts were let under competitive bidding.

Mr. VINSON. Of this type, public works.

Mr. MEADER. Only construction?

Mr. VINSON. Yes; only public works construction.

Mr. MEADER. As I recall, the gentleman's committee did criticize the lack of competitive bidding.

Mr. VINSON. Ninety-seven percent of all contracts for public works let by the Bureau of Yards and Docks and the Corps of Engineers for the physical building of installations is by competitive bid.

Mr. GROSS. Mr. Chairman, will the gentleman yield?

Mr. VINSON. I yield to the gentleman from Iowa.

Mr. GROSS. Was the language stricken with respect to roads at the Air Force Academy, section 6 of the original bill on page 4? Is that the language that was stricken?

Mr. VINSON. Yes, that is it exactly. That is in the original bill.

Mr. GROSS. Do I understand it is going to cost $135 million to build some more roads out there?

Mr. VINSON. Oh, no, this was an item for about $1.4 million.

The CHAIRMAN. The time of the gentleman from Georgia has expired.

Mr. ARENDS. Mr. Chairman, I yield myself 10 minutes.

Mr. Chairman, our Armed Services Committee chairman has given a fine description and analysis of what this bill will do, and I, therefore, in dealing with the bill itself, will touch on only its highlights.

I would like to say at the outset that while I give my wholehearted support to this bill, I will continue to give my support to all vital and necessary defense bills that come before the Armed Services Committee and the House. I am not going to be a party to any policy whereby money is needlessly put into the lap of any department of the Department of Defense unless the matters dealt with in that bill are completely justified.

We must all be aware that sputnik and the testing of the ICBM by the Soviet Union has created an atmosphere which is highly favorable to the granting of any authorization and any appropriation requested by the Department of Defense. We must give everything that is necessary, while exercising the greatest care not to give anything that is unnecessary—not give funds which cannot be efficiently and advantageously spent within a given time period—or authorizations which have not been most precisely justified by the Department of Defense. In other words, there is no panic involved here—only doing what objectively should be done.

All of this might sound as though I was halfhearted in my support of this bill. Nothing could be further from the truth. This bill was well justified before the committee, and this is evident by the fact that it was reported out unanimously with 34 of the 36 members present. I believe we could expect at least one dissenting vote if there had been doubt as to the need for the legislation.

The bill in all of its elements has the most intimate relationship with the President's message of last week. The President, for example, says:

> We must have sure warning in case of attack. The improvement of warning equipment is becoming increasingly important as we approach the period when long-range missiles will come into use.

This statement is directly related to the authority requested in the bill for further construction for the semiautomatic ground environment system—SAGE—in the amount of $29,670,000.

It is also directly related to construction for the ballistic missile detection system in the amount of $189 million.

The President's statement that "we must protect and disperse our striking forces and increase their readiness for

instant reaction" is likewise directly related to construction of alert facilities for the Strategic Air Command forces in the amount of $24,600,000 and construction for the dispersal of the Strategic Air Command forces in the amount of $194 million. The President's statement that "we must maintain deterrent retaliatory power. This means, among other things, stepped-up long-range missile programs and accelerated programs for other effective missile systems" again directly relates to that portion of the bill which deals with ballistic missiles in the amount of $112,400,000.

I think it is clear from the President's statements of last week and the provisions of this bill that the committee is doing its part toward effecting the program of the administration—which, in turn, is the program of all the people of the United States.

In past wars in which our country has been involved, it has been possible to accomplish much in the way of weapons development, enlargement of our forces, and expansion of our bases after the conflict was upon us. In those wars, fortune was with us, in that our boundaries were not violated and our homes, cities, and industries were not subjected to enemy attack. This situation now is changed.

Recent advances in the field of science have brought about the development of vehicles of destruction which greatly minimize the element of distance. In light of the more recent discoveries in weapons, the whole world is a potential battlefield. Weapons now in existence have capabilities for destruction almost beyond imagination.

We are currently involved in an extremely competitive weapons race with the Soviet bloc. This is a race which we cannot afford to lose. It is imperative, therefore, that we take the steps necessary to produce the weapons and the bases needed for the most effective utilization of those weapons at the earliest possible date.

The recent demonstrations of Soviet scientific progress and the implications this progress has for Soviet military technology emphasizes the need for acceleration in the achievement of maximum capability of our defensive systems and retaliatory forces.

In light of these factors, and to provide military capabilities in greater quantities and at earlier dates, the Department of Defense has recommended, and the President has approved, the bill we have before us today.

Base construction is a key element to our capabilities.

First, we must provide a maximum posture for the bombers of the Strategic Air Command.

Second, we must provide sites for an extremely powerful long-range warning system to provide a maximum warning period to our defensive forces and to the strategic bombers. This we need to permit rapid reaction by the SAC bombers upon receipt of tactical warning of an impending enemy ballistic-missile attack.

Third, we must develop sites and facilities for an earlier and increased capability to launch our own intercontinental ballistics missiles—ICBM's—and intermediate range ballistic missiles—IRBM's.

None of these objectives can be achieved without extensive construction of base facilities, and this essential construction must be initiated promptly. A major portion of the facilities provided by this authorization bill are in northern areas with a limited period available each year to do heavy construction work. The purpose, therefore, of taking emergency action at this time, rather than including the projects in the normal annual construction authorization legislation later in this session, is to take full advantage of the coming construction season. This early action will, for the most part, gain a full year in the completion and attainment of operational capability of the important programs involved in the authorization bill we are considering today.

The committee has made a close examination of every item included in this supplemental construction authorization bill and is satisfied that each item is directly related to, and required in support of, the priority operational objectives to be accelerated by this emergency action. The items to be constructed under this authorization are essential to the dispersal and quick reaction time of SAC, to the attainment of an early significant operational capability in ballistic missiles, to ballistic-missile detection and warning, and to improved air defense.

We must recognize the need to implement, on an accelerated basis, the newest and the best weapons system if this country is to maintain technological and military superiority. It is vital to maintenance of our national security. Our support and approval of this bill will provide the Air Force base construction which will push forward priority military programs and continue an adequate war-deterrent capability.

In closing, Mr. Chairman, may I simply reemphasize some of the remarks that our chairman made a moment ago about our committee embarking upon a complete investigation of the whole subject as it affects our national security. I think that is a responsibility that our committee of 37 members, a completely nonpartisan committee, has willingly undertaken in an effort to take all necessary steps to provide our country the kind of defense that we need. It is going to be a long, tedious task, but we of the committee want to do the kind of job I think the House has a right to expect of us and certainly the country has a right to ask of us. And so, as time goes on, we shall develop every phase of our defense posture and structure and we shall come to the House with all possible information. We intend our investigation to be thorough and objective.

Mr. BATES. Mr. Chairman, will the gentleman yield?

Mr. ARENDS. I yield to the distinguished gentleman from Massachusetts.

Mr. BATES. Mr. Chairman, I want to congratulate the gentleman for the splendid and comprehensive statement which he made, particularly the remarks he made concerning the intentions of our committee to scrutinize very carefully all of these projects that are submitted to us, so that our present emergency will not turn into an excuse for a grab bag for funds which ordinarly could not be justified by themselves.

Mr. ARENDS. Mr. Chairman, let me say to the gentleman from Massachusetts that he is one of the important members of that committee who can be very helpful and who I know will in his usual manner be extremely helpful as we diligently look into every facet of this problem, which I think our committee is qualified to do and intends to do.

Mr. TEAGUE of California. Mr. Chairman, will the gentleman yield?

Mr. ARENDS. I yield to the gentleman from California.

Mr. TEAGUE of California. Mr. Chairman, I have some firsthand information which I think perhaps would be interesting to the membership as a whole and to the Committee. Camp Cook, which has been referred to by the distinguished Chairman, is in my district. All of us I think from time to time have been critical of the armed services for what seems to be inefficiency in their operations. I can say to you from my firsthand information that a splendid job is being done at Camp Cook in converting that old Army Base into a very important missile base, which it is. They are utilizing as many of the old buildings as they possibly can. They are not merely knocking everything down and starting from scratch. They have created splendid public relations in the area by the efficient way in which they are operating.

Mr. ARENDS. I am very glad that the distinguished gentleman has brought such information to the House.

Mr. VINSON. Mr. Chairman, will the gentleman yield?

Mr. ARENDS. I yield to our distinguished Chairman.

Mr. VINSON. Mr. Chairman, in connection with what was said by our distinguished colleague from California, let me say that a portion of Camp Cook will be used by the Navy and a portion of it will be used by the Air Force. There will be complete joint use of it. It was in the interest of economy to establish that facility there.

Mr. TEAGUE of California. If the gentleman would yield for just this observation, let me say that a splendid job is being done by both services in cooperation with each other.

Mr. ARENDS. Mr. Chairman, I feel our committee is determined to constructively and objectively do a good job for the welfare of this great country of ours, without any special benefit to any one individual.

Mr. VINSON. Mr. Chairman, I yield 10 minutes to the gentleman from Louisiana [Mr. BROOKS].

ALERT AND DISPERSAL OF STRATEGIC AIR COMMAND FORCES

Mr. BROOKS of Louisiana. Mr. Chairman, the chairman of the committee, Mr. VINSON, and the ranking minority member, Mr. ARENDS, have both given fine descriptions of what the bill

will do and the great urgency for its prompt passage.

I would like to deal with a matter that has for many years been of great interest to me, and that is the Strategic Air Command.

The Strategic Air Command's ability to conduct offensive air operations on a global basis is recognized as the primary deterrent to enemy aggression. This Nation is always faced with the possibility that this powerful deterrent will be ignored by potential aggressors, if they believe our strategic forces are vulnerable to surprise attack. We know that the Soviet Union has committed itself to creating a strong, modern, long range offensive force.

It is readily apparent that this capability is the prime threat to our national security. By design or miscalculation, the Soviet force may be launched against this country. Should this force be employed in a surprise attack against the United States, then the Strategic Air Command must immediately mount nuclear attacks designed to destroy the enemy's will and ability to wage war before irrevocable damage can be inflicted on the United States. The Strategic Air Command, to be effective, must react quickly and in great weight to be decisive.

To meet this objective of fast and powerful reaction, it is absolutely essential that our strategic force be dispersed at many locations throughout the United States to increase the probability of survival. Further, it is essential that this force be on alert—ready to launch the counterattack within minutes of the first warning. With this as our requirement, we must act immediately to make available the necessary alert and dispersal facilities.

It is necessary to accomplish some major construction at a number of bases in order that dispersal may be achieved. This construction must include the facilities essential for the support of B–52 combat units.

How shall we do this? To attain alert capability it is necessary that every bomber base be provided with paved hardstands near the end of the runway for those aircraft which are poised and ready to strike. For the combat crews who stand an around-the-clock alert to fly these bombers, there must be a ready building, also located at the end of the runway. These alert facilities must be made secure from sabotage.

There is one further action which must be taken to insure optimum employment of the strategic force, namely, the relocation of a number of conventional aircraft tanker units. In order that the fast-flying jet bombers may be refuelled at the proper point along their route to the target, the slower flying tankers must be out in front. That means moving a number of KC–97 squadrons to more northerly locations where their capability can be effectively used in refuelling the SAC bombers. This tanker relocation also involves some construction to adapt selected bases to the tanker requirements.

I would like to make two further comments with respect to the bill and its relation to the Strategic Air Command.

The committee received the assurance of the Air Force that the dispersal of the B–52's will in no way lessen the effectiveness of the Strategic Air Command.

The committee was further assured that the personnel strength of the Strategic Air Command bases would remain substantially the same because of the fact that when a squadron leaves a SAC base for dispersal, some other unit will come in and replace it. We can see, then, that this dispersal is a mere shifting of airplanes and men in order to spread throughout the whole country our first line of defense and offense in the Strategic Air Command.

My last remark relates to bombers of the Strategic Air Command and the missiles which so many feel will replace them in the near future.

Perhaps the missile will replace the manned bombers in time to come, but there is no evidence at the present time that the manned bomber, whether it be a B–47 or a B–52, will cease to be an effective weapon for many years to come.

Mr. AVERY. Mr. Chairman, will the gentleman yield?

Mr. BROOKS of Louisiana. I yield to my distinguished colleague.

Mr. AVERY. Did I understand the gentleman to say that where a unit of SAC was being dispersed or was being reassigned that, in turn, another unit of SAC would go to that original place so that the end result would be that we would have about the same complement of strength in each one of these bases?

Mr. BROOKS of Louisiana. Substantially, the gentleman is correct, but it would not be another unit of SAC necessarily that would be placed in that SAC base from which the unit is being taken. The idea that has been given to the committee there is that when a SAC unit is being dispersed to another base, and all of you who have SAC bases in your area are interested vitally in this—whenever a unit is taken from a SAC base and moved to another base in this dispersal program, the idea is that a unit from another base, whether it be a training unit or any other type of unit, a materiel command or something of that sort, will be moved back into the SAC base from which the unit has been taken and the end strength of the bases would remain substantially the same.

Mr. AVERY. Referring to the list of bases which were included in the bill where these dispersals are to be made by and large were those to be bases that are reactivated or renovated or were they to be mostly new installations?

Mr. BROOKS of Louisiana. They are older bases. You will notice, however, that in this bill the SAC bases that have received the attention of the bill are largely those in the northern part of the United States.

Mr. VINSON. Mr. Chairman, will the gentleman yield?

Mr. BROOKS of Louisiana. I yield to my distinguished chairman.

Mr. VINSON. May I remind our colleague that there are absolutely no new bases as a result of the dispersal of SAC.

Mr. AVERY. I thank the gentleman from Georgia and the gentleman from Louisiana for yielding to me on this point.

Mr. ARENDS. Mr. Chairman, I yield 2 minutes to the gentleman from Pennsylvania [Mr. GAVIN].

Mr. GAVIN. Mr. Chairman, recent achievements of the Soviet Union point up the importance of giving additional impetus to the long-range ballistic missile. The legislation before us today is designed to do this for both the intercontinental ballistic missile and the intermediate range ballistic missile, referred to as the ICBM and the IRBM.

Specifically, the proposed construction authorization will augment and accelerate our ICBM base preparations, and will provide facilities earlier than planned for the IRBM recently ordered into production.

Let me describe some of these missiles. The Atlas, as you know, is a 5,000-mile intercontinental range missile. The Thor and Jupiter are competitive designs of the 1,500-mile intermediate range ballistic missile. Development of these missiles have been accorded top priority for some time and each has progressed now to the point where it is feasible to accelerate and augment plans for the initial units.

ATLAS

Atlas is a huge multistage rocket propelled by liquid oxygen and kerosene. It will travel 5,000 nautical miles in about 30 minutes. Launched vertically, the missile accelerates rapidly many miles into outer space. At a point known to missile men as cutoff, the engines shut down, and the thermonuclear warhead separates. Speed at this cutoff point is almost 5 miles per second. This tremendous speed gives the warhead sufficient momentum to carry it along a free fall path to the target. Halfway to the target, or as the missile men say, at the apogee, it will be several hundred miles above the earth's surface. When it nears the target, it reenters the atmosphere much like a meteor. Only by encasing the warhead in a special protective shell known as the nose cone can it survive the terrific temperatures and aerodynamic forces encountered during this reentry phase.

The Atlas program is being carried out by a team of competent contractors. General Electric provides nose cones and guidance systems; North American the engines; and Convair is responsible for the airframe, assembly, and end-item testing. Additionally, the guided missiles research division of the Ramo-Wooldridge Corp. provides technical direction and system engineering services. The over-all program is considered well founded and essentially on the tightly compressed schedule laid out by the Air Force in 1954. Although there have been only four limited range flight tests of this missile to date—and incidentally, the last two were highly successful—there have been many hundreds of tests in special facilities simulating flight environment. Results of these tests have been impressive and there is high confidence in the program.

I have dwelt on the Atlas at some length because much of the construction authorization proposed in this bill is to be used to augment and accelerate the preparation of Atlas operational sites, all to be located within the United States. These missiles are unique and require special facilities that can only be provided by new construction. Further, in order to better assure survival under attack, they must be dispersed at rather widely separated locations. These facilities are long lead-time items and unless this base-construction program is pursued with vigor, we may find ourselves in the embarrassing position of having a usable missile with no place to fire it from.

THOR AND JUPITER

The Thor and Jupiter missiles are single stage rockets that operate in a similar manner to the Atlas but at a shorter range. No bases other than training facilities will be established in the United States for these missiles. As has been announced, it is planned that the initial units will be deployed overseas this year. The units are so designed as to require but a limited degree of special facility preparations. Where possible it is planned that these facilities will be provided by the host nation. Where such arrangements are not possible, the Air Force plans to locate the units where existing United States support facilities can be utilized.

As I mentioned earlier, the Thor and Jupiter IRBM's are competitive missiles of similar design. Each employs the same basic engine derived from the Atlas program. Both are single-stage missiles with the same general performance characteristics and capabilities. Jupiter is under development by the Army; Thor by the Air Force. The Air Force as the designated user plans to employ the IRBM as an integral part of the Strategic Air Command.

Both the Thor and Jupiter missiles as yet are still in the development phase. To date there have been 10 flight test attempts with the Thor and 7 with the Jupiter. Five of the Thor tests, including the last four, were successful. A sixth might have been successful had it not been erroneously destroyed by range-safety action. Of the 7 Jupiter tests, 3 were successful and 4, including the last 2 failed prematurely.

Although most of the information which I have dealt with above has been available to a close reader of newspapers and magazines, I think that a review of the Atlas, the Jupiter, and the Thor as they relate to this bill will be helpful.

I would like to make one concluding remark concerning a matter which has been brought up on previous occasions but which I feel cannot be stressed too strongly, and that is this:

To use an old fashioned but very meaningful phrase, and our very able chairman has referred to it, we must never find ourselves with all of our defense eggs in one basket. We need our bombers, we need our fighter planes, and we need the long-range missiles which have been the subject of my remarks. There can be no doubt of this.

But while we must be aware of the possibility of a total war, we must be equally aware of the even greater possibility of a limited war.

And who will fight the most likely of the wars of the future? The same foot soldier, the ground forces, who has fought all of our previous wars.

The very fact that we are prepared, and the enemy is aware of our preparedness makes it all the more likely that if trouble should break out, it would be a small war, a limited war. For these, too, we cannot fail to be prepared.

We must keep our ground forces strong, alert, equipped, and ready to move as they have had to move since the beginning of our country.

I urge all Members of the House to support this bill. It has been well thought out. It was well justified before the committee. And we, I feel, have not only an obligation to pass this legislation but to pass it in the promptest fashion possible.

Mr. ARENDS. Mr. Chairman, I yield such time as he may desire to the gentleman from Pennsylvania [Mr. VAN ZANDT].

Mr. VAN ZANDT. Mr. Chairman, I rise in support of H. R. 9739 which authorizes certain construction for the Department of the Air Force. In a few words this bill will meet the needs of our armed services by accelerating those military programs that are closely related to increased Soviet capabilities. Possibly, I should say this is the first step that is being taken by this Congress to meet the Soviet threat.

Mr. Chairman, by the early enactment of this bill we will save from 9 to 12 months in the acceleration of our offensive capabilities and our warning and defense position. The House Armed Services Committee of which I am a member has studied this bill very carefully and recommended its approval as it constitutes an essential step toward the fulfillment of the program of our country to make up for any lost time and to aggressively advance our capability to defend ourselves and to retaliate if we are attacked.

Mr. Chairman, this bill is the beginning of many bills that this Congress will approve as a means of strengthening our national defense.

Mr. ARENDS. Mr. Chairman, I yield such time as he may desire to the gentleman from New Jersey [Mr. WOLVERTON].

Mr. WOLVERTON Mr. Chairman, Congress has opened its session confronted by problems of an unusual character. Ordinarily the problems that confront Congress relate to domestic issues or questions of foreign policy. But, at this time we have a most unusual situation. It is different than any we have heretofore been required to deal with. Our present problems are the result of scientific and technological advances unexpectedly made known to the world by Russia.

The launching of a space satellite by Russia has awakened the world to the fact that a great scientific discovery makes necessary a complete readjustment in our thinking and planning for individual and national security. As yet, no one can estimate the effect of this new discovery. Will it eventually be a means of improving the welfare of people, or, as most people now fearfully believe, a means for their destruction?

Whatever its future use may be, the fact remains that at the present time the nations and people of the world look upon this new and mysterious discovery with fear. Consequently, deep and serious thought is being given to the subject, not only by scientists, but also by legislators and heads of government, whose duty it is to provide for the security of their people.

Until the recent discovery by Russia it had been generally assumed by all the nations of the world that our Nation was far advanced above all others in all types of missiles and atomic bombs of every category. This fact gave our Nation a great advantage in the so-called cold war. It gave courage and assurance of security to our allies and was a deterrent to unfriendly nations. But, with the penetration of the outer space by Russia, there came a distinct change in the attitude of all nations. No longer was there the same confidence in American superiority in the fields of missiles and nuclear weapons of war.

With this situation facing Congress and the policymaking departments of our Government it became necessary for President Eisenhower, as leader of the free nations of the world, to speak frankly with respect to the uncertainty and fear that had been created by the Russian discovery, and, to make recommendations to meet the new situation that would give reassurance of adequate security of our own people, as well as our allies. This he has done in an admirable manner in his state of the Union message delivered in person to the Congress.

The superb manner in which President Eisenhower met the challenge, answered his critics, and the wisdom and soundness of the policies he laid down to meet the emergency was attested by the fact that his speech to the Congress was interrupted 40 times during its deliverance by applause from both sides of the aisle—Democrats and Republicans, as well as the gallery filled with important persons both in and out of Government. Never before in the memory of the oldest person present had there been such a demonstration of approval and unity of thought regardless of political affiliation. It undoubtedly strengthened the hand of our President and reestablished our prestige among the free nations of the world.

The eight-point program submitted by the President deserves the wholehearted and enthusiastic support of every thoughtful and sincere citizen of this Nation.

In brief it is as follows: First, defense reorganization; second, accelerated defense efforts; third, continuation and strengthening of the mutual security program of both military and economic assistance to friendly nations; fourth, foreign trade encouraged; fifth, scientific cooperation with allies; sixth, scientific education and research; seventh, careful spending and saving; and eighth, work for peace.

Thus, in presenting the eight points the President makes plain not only a desire to provide an adequate system of defense to meet present-day needs, but likewise to assure a continuance of our basic national desire for peace. His words in this respect are well worth repeating, namely:

I say once more, to all people, that we will always go the extra mile with anyone on earth if it will bring us nearer a genuine peace.

It is now the duty of Congress to give serious, careful, and conscientious consideration to the program of the President, eliminate political partisanship, and act solely and entirely from the standpoint of providing adequate security against war and to promote every possible means to insure peace.

The bill before us today, H. R. 9739, is offered by the administration as the first step in the President's program to meet the emergency situation that has been presented the Nation as a result of recent scientific developments by Russia. If we are to meet the challenge that is presented, then there must be direct action by the Congress in the form that will enable our scientific endeavors and defense plans to progress.

It is to be sincerely hoped the situation will not develop into a race solely to produce weapons of war in which the nations of the world, particularly the leading nations, will strive to develop more and more deadly and destructive weapons.

The time has come when our efforts should also be directed toward the adoption by all nations of policies that will curtail, and even eliminate, the urge to create more and more deadly instruments of mass destruction.

Our national leaders and our people as a whole are committed to the cause of peace. It is therefore appropriate, by reason of our long-established record to promote peace, to take the leadership in an effort to bring the nations of the world to adopt a sensible and sane course that will discourage, and, if possible, preclude a continued race in military armament which in the end, if continued, could result in the destruction of the high standard of civilization that we know today. Is it asking too much to utilize our energies to build a peaceful atmosphere in which to live rather than an atmosphere that creates a feeling of constant fear? Let us meet not only the present situation as seems necessary by legislation of the character we have before us but also keep ever before us the need to find ways and means to promote peace if we are to survive and enjoy a peaceful atmosphere in which to live.

Mr. ARENDS. Mr. Chairman, I have no further requests for time.

Mr. VINSON. Mr. Chairman, I yield such time as he may desire to the distinguished gentleman from Massachusetts [Mr. PHILBIN].

Mr. PHILBIN. Mr. Chairman, the very able gentleman from Georgia has moved with all practicable speed and expedition to bring this emergency bill to the floor of the House and I desire to commend him. He has also made a fine statement in support of the bill.

I do not wish to speak at length on this measure because Chairman VINSON has so capably and fully outlined its provisions and purposes.

We are all agreed, I believe, on the need of orderly speed in pressing urgent defense programs. This bill will permit the continuation and acceleration of most essential defense activities relating to the progress and perfection of vital scientific and weapon systems—detection, ballistic missiles, deployment of forces, and related questions.

The bill has been expeditiously but carefully considered by the Armed Services Committee. It contains specific line items covering specific authorizations for necessary appropriations. It retains control by this Congress over both authority and expenditure. It deals with subject matters that must go forward at once without further delay. It is a safe, sound, forward-looking bill in every respect.

And it demonstrates one fact very conclusively—that Congress can and will act swiftly and efficiently whenever the national security and national welfare requires it.

However, from a legal and procedural standpoint, I am genuinely concerned by the proposed introduction of the amendment by the distinguished gentleman from Georgia [Mr. VINSON], which, in brief, as I understand it, would provide authority for the immediate establishment of the Advanced Research Projects Agency.

In order to make the record clear, it should be stated that it is the position of the Department of Defense that under the National Security Act of 1947, as amended, it does not need additional authority to create this agency. That is a proposition upon which I think there is room for reasonable differences of opinion. Obviously, if the Department of Defense can create this agency with its vast implications, it could create about any other agency without seeking the authority of Congress so long as it could get appropriations to conduct its activities and write authorizing language into an appropriation bill as in this case.

Under the amendment, for example, the new agency is vested with broadest powers of acquisition of land and construction and certain other activities, over which the House Armed Services Committee presently exercises jurisdiction to authorize.

Whether the proposed amendment legally constitutes a similar limitation upon the powers of the Department of Defense, which certainly the Department does not admit, or whether it would permit the Department to exercise exclusive authority are debatable questions. I think that these and other questions should have been resolved before the committee and that the regular procedure should have been followed and fresh authorization given to cover this specific agency with appropriate limitations and qualifications as has heretofore been our practice under the law.

However, this course was not followed. Instead the Department of Defense, claiming full authority to proceed, submitted the substance of this amendment to a bill pending before the Subcommittee on Appropriations for Armed Services, under the leadership of my very able, dear and esteemed friend, the gentleman from Texas [Mr. MAHON]. It is expected that the pending bill, together with this authorization clause, will come to the House floor on Tuesday next.

While I applaud this evidence of expeditious action regarding urgent matters, and while I am most anxious to render wholehearted cooperation to the new Secretary of Defense, Neil McElroy, who has made such an excellent impression on our committee and in official Washington during the short time he has been discharging the duties of his great office, I nevertheless am of the opinion that the same results of speedy action could have been achieved if the matter had been duly considered and acted upon by the House Armed Services Committee in the regular course.

For these reasons, I desire to qualify my remarks in support of this legislation and state further that, while I do not propose to object and will support both the amendment and the bill, I nevertheless feel that the regular order should have been followed in this case.

I have utmost confidence in Secretary McElroy. It is my opinion that he will be an outstanding Secretary of Defense. From my observations of him during the exhaustive, trying hearings of the past few days, like the other members of the committee, I have come to entertain high respect for his ability, fairness, and high purpose.

I am of the opinion that he is a man of great stature and outstanding ability and that he is strongly committed to performing his duties in accordance with existing law and with full recognition of the responsibilities and duties of the Congress. I am sure that he will have our sympathetic consideration and wholehearted cooperation.

But the implications of this new Agency, involving as they do the possible revision of roles and missions expressly outlined in existing law, certainly require the most zealous and studied deliberations of our committee and the House. Fundamental changes will be required in our entire defense setup. That is unquestionable. But we must make sure that these changes are carefully thought out, and carefully worked out, and do not take place without proper deliberation upon all factors—legal, military, economic, and social—which should be meticulously considered in connection with reorganization and readjustment problems of the services. Our committee and the Congress have great obligations to fulfill in this respect.

It is also my hope that this amendment will not serve as a future precedent for considering amendments to important measures before the House. I am strongly opposed to redtape and unnecessary delay in dealing with Government problems. I am anxious always to see orderly procedure and expeditious action. But I see nothing in this situation confronting us at this time which would warrant the avoidance of our established legislative procedures.

Mr. VINSON. Mr. Chairman, I have no further requests for time and ask that the bill be read for amendment.

The CHAIRMAN. The Clerk will read, and pursuant to the rule, the Clerk will now read the substitute committee amendment printed in the reported bill as an original bill for the purpose of amendment.

The Clerk read as follows:

Be it enacted, etc., That the Secretary of the Air Force may establish or develop military installations and facilities by acquiring, constructing, converting, rehabilitating, or installing permanent or temporary public works, including site preparation, appurtenances, utilities, and equipment, for the following projects:

SEMIAUTOMATIC GROUND ENVIRONMENT SYSTEM (SAGE)

Grand Forks Air Force Base, Grand Forks, N. Dak.: Administrative facilities, $270,000.

K. I. Sawyer Airport, Marquette, Mich.: Administrative facilities, $277,000.

Larson Air Force Base, Moses Lake, Wash.: Utilities, $50,000.

Luke Air Force Base, Phoenix, Ariz.: Operational and training facilities, and utilities, $11,582,000.

Malmstrom Air Force Base, Great Falls, Mont.: Operational and training facilities, and utilities, $6,901,000.

Minot Air Force Base, Minot, N. Dak.: Operational and training facilities, and utilities, $10,338,000.

Norton Air Force Base, San Bernardino, Calif.: Utilities, $172,000.

Syracuse Air Force Station, Syracuse, N. Y.: Troop housing facilities, $80,000.

BALLISTIC MISSILE DETECTION SYSTEM

Various locations: Operational and training facilities, maintenance and production facilities, research, development, and test facilities, supply facilities, hospital and medical facilities, administrative facilities, housing and community facilities, utilities, land acquisition, and ground improvements, $159 million.

BALLISTIC MISSILES

Various locations: Operational and training facilities, maintenance and production facilities, research, development, and test facilities, supply facilities, hospital and medical facilities, administrative facilities, housing and community facilities, utilities, land acquisition, and ground improvements, $112,400,000.

ALERT AND DISPERSAL OF STRATEGIC AIR COMMAND FORCES

Ellsworth Air Force Base, Rapid City, S. Dak.: Operational and training facilities, $3,194,000.

Fairchild Air Force Base, Spokane, Wash.: Operational and training facilities, $1,461,000.

Grand Forks Air Force Base, Grand Forks, N. Dak.: Operational and training facilities, and utilities, $895,000.

Griffiss Air Force Base, Rome, N. Y.: Operational and training facilities, and utilities, $664,000.

Larson Air Force Base, Moses Lake, Wash.: Operational and training facilities, $2,603,000.

Lockbourne Air Force Base, Columbus, Ohio: Operational and training facilities, and utilities, $1,089,000.

Loring Air Force Base, Limestone, Maine: Operational and training facilities, $1,524,000.

Malmstrom Air Force Base, Great Falls, Mont.: Operational and training facilities, $872,000.

Minot Air Force Base, Minot, N. Dak.: Operational and training facilities, and utilities, $867,000.

Mountain Home Air Force Base, Mountain Home, Idaho: Operational and training facilities, and utilities, $4,380,000.

Offutt Air Force Base, Omaha, Nebr.: Operational and training facilities, and utilities $690,000.

Pease Air Force Base, Portsmouth, N. H.: Operational and training facilities, and utilities, $1,668,000.

Plattsburgh Air Force Base, Plattsburgh, N. Y.: Operational and training facilities, and utilities, $1,116,000.

Westover Air Force Base, Chicopee Falls, Mass.: Operational and training facilities, and utilities, $2,368,000.

Eglin Air Force Base, Valparaiso, Fla.: Operational and training facilities, maintenance and production facilities, supply facilities, and utilities and ground improvements, $8,958,000.

Glasgow Air Force Base, Glasgow, Mont.: Operational and training facilities, maintenance and production facilities, supply facilities, housing and community facilities, and utilities, $29,644,000.

Kinross Air Force Base, Sault Ste. Marie, Mich.: Operational and training facilities, supply facilities, housing and community facilities, and utilities, $23,762,000.

K. I. Sawyer Airport, Marquette, Mich.: Operational and training facilities, supply facilities, housing and community facilities, and utilities, $27,233,000.

Robins Air Force Base, Macon, Ga.: Operational and training facilities, maintenance and production facilities, supply facilities, and utilities, $3,667,000.

Wright-Patterson Air Force Base, Dayton, Ohio: Operational and training facilities, maintenance and production facilities, supply facilities, utilities, and ground improvements, $22,632,000.

Wurtsmith Air Force Base, Oscoda, Mich.: Operational and training facilities, maintenance and production facilities, supply facilities, housing and community facilities, and utilities, $22,349,000.

Clinton County Air Force Base, Wilmington, Ohio: Operational and training facilities, maintenance and production facilities, supply facilities, housing and community facilities, and utilities, $8,776,000.

Dover Air Force Base, Dover, Del.: Operational and training facilities, maintenance and production facilities, supply facilities, and utilities, $4,715,000.

Ernest Harmon Air Force Base, Stephenville, Newfoundland: Operational and training facilities, and maintenance and production facilities, $2,217,000.

Goose Airbase, Labrador: Operational and training facilities, and maintenance and production facilities, $2,007,000.

McChord Air Force Base, Tacoma, Wash.: Operational and training facilities, supply facilities, and utilities, $4,995,000.

McGuire Air Force Base, Wrightstown, N. J.: Operational and training facilities, maintenance and production facilities, supply facilities, housing and community facilities, and utilities, $6,979,000.

Otis Air Force Base, Falmouth, Mass.: Operational and training facilities, maintenance and production facilities, and utilities, $7,079,000.

Selfridge Air Force Base, Mount Clemens, Mich.: Operational and training facilities, maintenance and production facilities, supply facilities, and utilities, $17,487,000.

Various locations: Land acquisition as required for the stations listed above, $2,709,000.

SEC. 2. The Secretary of the Air Force may proceed to establish or develop installations and facilities under this act without regard to sections 3648 and 3734 of the Revised Statutes, as amended, and sections 4774 (d) and 9774 (d) of title 10, United States Code. The authority to place permanent or temporary improvements on land includes authority for surveys, administration, overhead, planning, and supervision incident to construction. That authority may be exercised before title to the land is approved under section 355 of the Revised Statutes, as amended, and even though the land is held temporarily. The authority to acquire real estate or land includes authority to make surveys and to acquire land, and interests in land (including temporary use), by gift, purchase, exchange of Government-owned land, or otherwise.

SEC. 3. There are authorized to be appropriated such sums as may be necessary for the purposes of sections 1 and 2 of this act, but appropriations for public-works projects authorized by those sections may not exceed $549,670,000.

SEC. 4. Whenever—

(1) the President determines that compliance with section 2313 (b) of title 10, United States Code, for contracts made under this act for the establishment or development of military installations and facilities in foreign countries would interfere with the carrying out of this act; and

(2) the Secretary of Defense and the Comptroller General have agreed upon alternative methods for adequately auditing those contracts, the President may exempt those contracts from the requirements of that section.

SEC. 5. Contracts made by the United States under this act shall be awarded, insofar as practicable, on a competitive basis to the lowest responsible bidder, if the national security will not be impaired and the award is consistent with chapter 137 of title 10, United States Code, and section 15 of the act of August 9, 1955 (69 Stat. 547, 551). The Secretary of the Air Force shall report semiannually to the President of the Senate and the Speaker of the House of Representatives with respect to all contracts awarded on other than a competitive basis to the lowest responsible bidder.

SEC. 6. Any of the amounts named in section 1 of this act may, in the discretion of the Secretary of the Air Force, be increased by 15 percent. However, the total cost of all projects may not be more than the total amount authorized to be appropriated by section 3 of this act.

Mr. VINSON (interrupting the reading of the bill). Mr. Chairman, I ask unanimous consent that further reading of the bill be dispensed with, that it be printed in its entirety at this point in the RECORD and be open to amendment at any point.

The CHAIRMAN. Is there objection to the request of the gentleman from Georgia?

There was no objection.

The CHAIRMAN. Are there amendments to the committee amendment?

Mr. VINSON. Mr. Chairman, I offer an amendment to the committee amendment.

The Clerk read as follows:

Amendment offered by Mr. VINSON: Add a new section, as follows:

"SEC. 7. The Secretary of Defense is hereby authorized to establish within the Department of Defense the Advanced Research Projects Agency, hereafter referred to as the Agency. The Agency shall have a director, to be appointed by the Secretary of Defense, and such other employees as the Secretary of Defense shall from time to time authorize. It shall be the duty of the Agency to engage in advanced, basic, and applied research, as well as the development, of weapons systems for the military departments, and to engage in such research and development of weapons systems not under the immediate jurisdiction of any military department as the Secretary of Defense, after consultation with the Joint Chiefs of Staff, may assign to such Agency.

"Nothing in this provision of law shall preclude the Secretary of Defense from assigning to the military departments the duty of engaging in research and development of weapons systems necessary to fulfill the combatant functions assigned by law to such military departments.

"The Agency shall have authority to enter into contracts with persons, corporations, colleges, universities, institutes, Government agencies, and such other organizations as the Secretary of Defense may approve, for advanced basic or applied research, or development of, weapons systems, or to engage in such research or development within the agency by utilizing employees or consultants of the Agency.

"The Secretary of Defense shall assign the weapons systems developed by such Agency to such military department or departments for production and operational control as he may determine.

"Nothing contained in this provision of law shall be construed as repealing, limiting, abrogating or modifying the limitations on the powers and duties of the Department of Defense and the Secretary of Defense as are now contained in the National Security Act, as amended."

Mr. VINSON. Mr. Chairman, for the benefit of the committee I desire to call their attention to what this amendment is all about and to say that in the state of the Union message the President made reference to this agency.

In a statement made before the Committee on the Armed Services a few days ago by the new Secretary of Defense, he said:

I am establishing within the Department of Defense an Advanced Research Projects Agency, which will be responsible to the Secretary of Defense, for the unified direction and management of the antimissile missile programs and for outer space projects. I would expect to assign other special projects of this nature to this agency from time to time in the future.

The Agency will not be expected to take over research and development of weapons systems which fall clearly within the mission of any one of the military departments. It is contemplated that programs assigned to the Agency will be developed in full coordination with the military departments to the point where they are approaching operational capability so that they may be phased into the operation of one or more of the military services with no loss of time or interruption of development and production. We propose to establish the new Agency promptly and appoint a highly qualified director. The Director will have authority to arrange for the performance of work by other agencies of Government, including the military departments, to enter into contracts with private business or educational and research institutions, or to perform work directly with his own staff and facilities.

Of course, when the Secretary made that statement before the Armed Services Committee we immediately recognized the importance of the language and the purport of what he had in mind.

The appropriation bill is proposed to carry some $10 million dealing with this. The question was raised this morning in committee as to whether or not the Secretary has the authority to establish this agency, as Secretary of Defense, or whether it is an agency which the Congress should give him the authority to establish.

Another question that deeply concerned us was whether or not the Department of Defense can enter into any production contracts. Such contracts are now made by the Departments of the Army, Navy, and Air Force. I know of no specific language in the National Security Act which gives to the Department of Defense the right to enter into a production contract. In fact, it was the concept when the Security Act was written that that office would be nothing more than a policymaking organization. Therefore, in view of the importance of this matter, we have submitted the pending amendment. It might have to be modified in conference or it may have to be added to or subtracted from, but I, at least, want it in this bill before the appropriation bill comes up for consideration.

Mr. BROOKS of Louisiana. Mr. Chairman, will the gentleman yield?

Mr. VINSON. I yield to the gentleman from Louisiana.

Mr. BROOKS of Louisiana. By placing the amendment here, the Congress will be indicating that it does authorize the authority within the Department, but it does not accept the theory that the Defense Department has authority over all agencies that they wish to create. Is that not substantially the situation?

Mr. VINSON. We do not by this amendment establish. We merely permit him to be vested with the authority to establish. We prescribe the language in here. I think the gentleman is correct in his conclusion.

The CHAIRMAN. The time of the gentleman from Georgia has expired.

(By unanimous consent (at the request of Mr. VINSON) he was permitted to proceed for 1 additional minute.)

Mr. VINSON. Mr. Chairman, this was left to our chief counsel, Mr. Smolt, to develop during the hearings this morning. It was necessary for me to appear before the Rules Committee at 10:30 in order to get a rule; therefore I was not present during all of the hearing. But the gentleman from Texas [Mr. KILDAY] and other Members were there, so I ask the committee to permit Mr. KILDAY to address you on the validity, the soundness, and the wisdom of this amendment being offered at this point.

Mr. KILDAY. Mr. Chairman, I move to strike out the last word.

Mr. Chairman, there can be no doubt but that at the present time we are in a condition of emergency with reference to matters existing in the Department of Defense. This is not our first emergency. We have had recurring emergencies, and I think, to be more correct about it, we would have to say that this has not yet been called an emergency but more an urgency; that there is a condition or a situation of urgency.

I believe it has been true always, and I am sure since I have been here, that in a situation of this kind the executive departments attempt to secure the broadest of powers and to get from under any type of control that Congress has customarily exercised. The gentleman from Illinois [Mr. ARENDS], in his remarks here today, pointed out that he wanted to see to it that the military got everything that they needed but that we should not, because there may be some symptoms of hysteria in the country, give them those things which are not needed.

I would like to point out the portion of this bill that has been stricken. As you realize, the committee struck out all after the enacting clause and inserted its own language. You will see that the Department, as it sent this bill up here, asked to be released from practically all Congressional control at this early stage. The bill as drafted would have permitted the Secretary of the Air Force to establish bases where he pleased so long as it came within the money limitation and the categories mentioned. He could have established such installations anywhere he pleased and in any number he pleased as long as he stayed within $29,670,000 for SAGE; ballistic missile detection system, $189 million; alert facilities for Strategic Air Command forces, $24.6 million; ballistic missiles, $112.4 million; the dispersal of Strategic Air Command forces, $194 million.

The committee has seen fit to strike out that language and to proceed as we have since the termination of World War II to authorize these matters by line item except where security prevents that being done, and that is what we have done here. I believe I can say that the Committee on Armed Services intends to remain vigilant on matters of this kind.

In his message on the state of the Union, the President referred to the fact that there are new weapons coming into the picture which actually belong to none of the services, because they are totally new in concept and do not come within the roles or missions of any of the services. The Secretary of Defense has told us that he proposes to establish within the Department of Defense an Advanced Research Projects Agency and to commit to it those things which our chairman read you from his statement before the committee today. That would include, perhaps, under the broad language that the Secretary was speaking of, the power to enter into production contracts by the Secretary of Defense, something that has not been permitted since the establishment of the Department of Defense. As has always been done, all the appropriations have run to the Secretaries of the military departments. The General Counsel of the Department of Defense takes the position that Congress, having established the Department of Defense, has endowed the Secretary of Defense with power to operate his Department as he sees fit except in those instances in which we have denied him certain powers. I know of no member of our committee who agrees with the General Counsel in his construction of either the National Security Act of 1947 as amended in 1949 or in his construction of title V of the United States Code.

Now, the President has stated that this research should be done at a level other than the individual services. We have a new Secretary of Defense who has very favorably impressed your Committee on Armed Services in his appearances before us now for 2 full days and half of today. His first attempt to accelerate research and development of missiles and antimissile missiles and the

new weapons that might be coming into the picture is by creating the Advanced Research Projects Agency.

I am sure that the Congress does not want in any way to impede the new Secretary of Defense. I am sure we all want to give him what he feels he needs in order to take this first step in bettering research and development on missiles and new weapons of all types. The language that we have brought here makes it clear, without stopping to debate what is the proper legal construction of the National Security Act or the amendments of 1949 or title 5 of the United States Code, that we give him the power to do everything that he said he proposed to do with reference to his Advanced Research Projects Agency, and we give it to him by positive provision of law, so that there will be no impediment to Mr. McElroy in his new office as Secretary of Defense in securing basic and applied research and development of any type of missile that he decides should be committed to that new organization within the Department of Defense.

The CHAIRMAN. The time of the gentleman from Texas [Mr. KILDAY] has expired.

(By unanimous consent, at the request of Mr. VINSON, Mr. KILDAY was given permission to proceed for 5 additional minutes.)

Mr. KILDAY. So that the Secretary may proceed as he thinks best to give us the greatest guaranty of success in the great undertaking for which he has now assumed responsibility. I believe that we are here giving him everything that he proposes to do by his directive, except that we are doing it in the legal, proper, orderly fashion, by statute.

Mr. GROSS. Mr. Chairman, will the gentleman yield?

Mr. KILDAY. I yield to the gentleman from Iowa.

Mr. GROSS. As I understand this amendment—and I do not believe there are printed copies of the amendment available; is that correct?

Mr. KILDAY. There may be a carbon copy or two.

Mr. GROSS. Did the committee give consideration to the amendment; did it hold hearings on it?

Mr. KILDAY. As the chairman explained, Secretary McElroy was before the committee this morning, as he was all day yesterday and all day on Monday and testified in very considerable detail in his opening statement on Monday and again this morning with reference to the Advanced Research Projects Agency. The General Counsel of the Department of Defense was present and testified in some detail as to his construction of the National Security Act. This amendment was not reported by the committee. This amendment is offered on the responsibility of the gentleman from Georgia [Mr. VINSON], who is chairman of the committee. But it was not offered by direction of the committee.

Mr. GROSS. Mr. Chairman, if the gentleman will yield further, I appreciate the gentleman's explanation and that is exactly what I wanted to get at. This is an amendment offered on the floor of the House which would create another agency of Government; is that not correct?

Mr. KILDAY. It creates an agency within the Department of Defense.

Mr. VINSON. It authorizes it, it does not create it.

Mr. KILDAY. That is true, it authorizes the Secretary of Defense to create an agency.

Mr. GROSS. I do not think there is any question, if the amendment is voted into this bill today, and if the bill is approved by the House and by the other body, that there will be another agency with a director, in the Department of Defense?

Mr. KILDAY. That is correct. And the question is whether we shall do it by law, in the legal and proper manner or not, because it is going to be done anyway. And we take the position, and take it very positively and very firmly, that these matters are going to have to be submitted here. If he can create this Agency without statutory authority, then he can create a hundred more. But if we approve this by statutory authority, we have not recognized his right to create another single one.

Mr. GROSS. Since the gentleman is assuming the responsibility for it here and now, I wonder if the gentleman could tell me how much more this is going to increase the personnel in Government and what the added cost is going to be?

Mr. VINSON. Ten million dollars.

Mr. KILDAY. There is a bill pending in the Committee on Appropriations which I understand we will have up probably next Tuesday. This bill is authorizing legislation for some of those projects. The chairman of that subcommittee is present.

Mr. MAHON. If the gentleman will yield, last month the Secretary of Defense said that he could dispose of some of the controversy and jealousy in the Department of Defense and move faster with the advanced weapons program and get more for the taxpayers' dollar if he could lift out of the services certain advanced work and let it all be headed up in one unified program. He called this the Advanced Research Projects Agency. He has asked for the right to transfer available funds now in the hands of the services to that program, for example in the military satellite program and in the anti-ICBM program, and so forth. He is proposing to transfer presently available funds in the hands of the Air Force, the Navy, and the Army to this agency, where he thinks he can get more progress, more for the money, and less duplication. That is the picture as it has been presented to us. I would not want to deny this new Secretary of Defense, who apparently is a man of real stature, on this effort to bring more order into certain military fields.

Mr. KILDAY. If the gentleman will permit, I should like to answer the other portion of the question of the gentleman from Iowa as to how many more employees this is going to create, and that sort of thing. This in and of itself will not increase it by one man. In the present attitude existing in the United States, I think it would be self-evident that there is going to be a great acceleration in research and development of missiles of all types and of all things having to do with outer space, so that there are going to be employed scientists of every character to engage in research and development. They are going to be employed someplace, either in the military services or in the Department of Defense. Under this provision they will be employed in the central agency within the Department of Defense, so that their services will be available to all of the military departments. But of itself it will not increase the number of employees.

The CHAIRMAN. The question is on the amendment offered by the gentleman from Georgia [Mr. VINSON] to the committee substitute.

The amendment to the committee substitute was agreed to.

The CHAIRMAN. The question is on the committee substitute as amended.

The committee substitute was agreed to.

The CHAIRMAN. Under the rule, the Committee rises.

Accordingly, the Committee rose; and the Speaker having resumed the chair, Mr. SIKES, Chairman of the Committee of the Whole House on the State of the Union, reported that that Committee, having had under consideration the bill (H. R. 9739) to authorize the Secretary of the Air Force to establish and develop certain installations for the national security, and for other purposes, pursuant to House Resolution 437, he reported the bill back to the House with an amendment adopted by the Committee of the Whole.

The SPEAKER. Under the rule, the previous question is ordered.

The question is on the amendment.

The amendment was agreed to.

The SPEAKER. The question is on the engrossment and third reading of the bill.

The bill was ordered to be engrossed and read a third time, and was read the third time.

The SPEAKER. The question is on the passage of the bill.

Mr. VINSON. On that, Mr. Speaker, I ask the yeas and nays.

The yeas and nays were ordered.

The question was taken; and there were—yeas 374, nays 0, not voting 54, as follows:

[Roll No. 2]

YEAS—374

Abbitt	Baring	Bray
Abernethy	Barrett	Breeding
Adair	Bass, N. H.	Brooks, La.
Addonizio	Bass, Tenn.	Brooks, Tex.
Albert	Bates	Broomfield
Alexander	Beamer	Brown, Ga.
Alger	Becker	Brown, Mo.
Allen, Calif.	Beckworth	Brown, Ohio
Allen, Ill.	Belcher	Broyhill
Andersen, H. Carl	Bennett, Fla.	Buckley
	Bennett, Mich.	Budge
Anderson, Mont.	Bentley	Burdick
	Berry	Burleson
Andrews	Betts	Bush
Anfuso	Blatnik	Byrd
Arends	Blitch	Byrne, Ill.
Ashmore	Boggs	Byrne, Pa.
Aspinall	Boland	Byrnes, Wis.
Auchincloss	Bolling	Canfield
Avery	Bolton	Cannon
Bailey	Bonner	Carrigg
Baker	Bosch	Cederberg
Baldwin	Boykin	Chamberlain
Barden	Boyle	Chelf

Chenoweth	Holmes	Pelly
Chiperfield	Holt	Perkins
Christopher	Horan	Pfost
Church	Hosmer	Philbin
Clark	Huddleston	Pilcher
Clevenger	Hull	Pillion
Coad	Hyde	Poage
Coffin	Ikard	Poff
Collier	Jackson	Polk
Colmer	James	Porter
Cooley	Jarman	Price
Corbett	Jenkins	Prouty
Coudert	Jennings	Rabaut
Cramer	Johansen	Rains
Cunningham, Iowa	Johnson	Ray
	Jonas	Reece, Tenn.
Cunningham, Nebr.	Jones, Ala.	Rees, Kans.
	Jones, Mo.	Reuss
Curtin	Judd	Rhodes, Pa.
Curtis, Mass.	Karsten	Riehlman
Dague	Kearney	Riley
Davis, Ga.	Kearns	Robeson, Va.
Davis, Tenn.	Keating	Robsion, Ky.
Dawson, Utah	Kee	Rodino
Dellay	Kelly	Rogers, Colo.
Dempsey	Keogh	Rogers, Fla.
Dennison	Kilday	Rogers, Mass.
Denton	Kilgore	Rogers, Tex.
Derounian	King	Rutherford
Devereux	Kirwan	Sadlak
Dingell	Kitchin	Santangelo
Dixon	Kluczynski	St. George
Dollinger	Knox	Saund
Dooley	Knutson	Schenck
Dorn, N. Y.	Krueger	Scherer
Dorn, S. C.	Laflore	Scott, N. C.
Dowdy	Laird	Scott, Pa.
Doyle	Landrum	Scrivner
Durham	Lankford	Scudder
Dwyer	LeCompte	Seely-Brown
Eberharter	Lennon	Selden
Edmondson	Libonati	Shuford
Elliott	Lipscomb	Sieminski
Engle	Long	Sikes
Evins	Loser	Siler
Fallon	McCarthy	Simpson, Ill.
Farbstein	McCormack	Sisk
Fascell	McCulloch	Smith, Calif.
Feighan	McDonough	Smith, Miss.
Fenton	McFall	Smith, Va.
Fino	McGovern	Smith, Wis.
Fisher	McGregor	Spence
Flood	McIntire	Springer
Flynt	McIntosh	Staggers
Forand	McMillan	Stauffer
Ford	McVey	Steed
Forrester	Machrowicz	Sullivan
Fountain	Mack, Ill.	Taber
Frazier	Mack, Wash.	Talle
Frelinghuysen	Madden	Teague, Calif.
Friedel	Magnuson	Teague, Tex.
Fulton	Mahon	Teller
Garmatz	Mailliard	Tewes
Gary	Marshall	Thomas
Gathings	Martin	Thompson, Tex.
Gavin	Mason	Thomson, Wyo.
George	Matthews	Thornberry
Glenn	May	Tollefson
Granahan	Meader	Trimble
Grant	Metcalf	Tuck
Gray	Michel	Udall
Green, Oreg.	Miller, Calif.	Ullman
Gregory	Miller, Md.	Utt
Griffin	Miller, Nebr.	Vanik
Griffiths	Mills	Van Pelt
Gross	Minshall	Van Zandt
Gubser	Mitchell	Vinson
Gwinn	Moore	Vorys
Hagen	Morano	Vursell
Hale	Morgan	Walter
Haley	Morris	Watts
Halleck	Moss	Weaver
Harden	Moulder	Westland
Hardy	Multer	Wharton
Harris	Mumma	Whitener
Harrison, Nebr.	Murray	Whitten
Harrison, Va.	Natcher	Widnall
Harvey	Neal	Wier
Haskell	Nicholson	Wigglesworth
Healey	Nimtz	Williams, Miss.
Hébert	Norblad	Willis
Hemphill	Norrell	Wilson, Calif.
Henderson	O'Brien, Ill.	Wilson, Ind.
Herlong	O'Brien, N. Y.	Winstead
Heselton	O'Hara, Ill.	Withrow
Hess	O'Hara, Minn.	Wolverton
Hiestand	O'Konski	Wright
Hill	O'Neill	Yates
Hoeven	Osmers	Young
Hoffman	Ostertag	Younger
Holifield	Patman	Zablocki
Holland	Patterson	Zelenko

NAYS—0

NOT VOTING—54

Ashley	Hays, Ohio	Reed
Ayres	Hillings	Rhodes, Ariz.
Baumhart	Holtzman	Rivers
Bow	Jensen	Roberts
Brownson	Kean	Rooney
Carnahan	Kilburn	Roosevelt
Celler	Lane	Saylor
Cretella	Latham	Schwengel
Curtis, Mo.	Lesinski	Sheehan
Dawson, Ill.	Macdonald	Shelley
Delaney	Merrow	Sheppard
Dies	Miller, N. Y.	Simpson, Pa.
Diggs	Montoya	Smith, Kans.
Donohue	Morrison	Taylor
Fogarty	Passman	Thompson, La.
Gordon	Powell	Thompson, N. J.
Green, Pa.	Preston	Wainwright
Hays, Ark.	Radwan	Williams, N. Y.

So the bill was passed.

The Clerk announced the following pairs:

Mr. Hays of Ohio with Mr. Taylor.

Mr. Preston with Mr. Kean.

Mr. Carnahan with Mr. Baumhart.

Mr. Sheppard with Mr. Bow.

Mr. Lane with Mr. Miller of New York.

Mr. Macdonald with Mr. Radwan.

Mr. Shelley with Mr. Saylor.

Mr. Rooney with Mr. Schwengel.

Mr. Celler with Mr. Sheehan.

Mr. Delaney with Mr. Simpson of Pennsylvania.

Mr. Dawson of Illinois with Mr. Wainwright.

Mr. Fogarty with Mr. Brownson.

Mr. Green of Pennsylvania with Mr. Hillings.

Mr. Morrison with Mr. Latham.

Mr. Thompson of Louisiana with Mr. Merrow.

Mr. Holtzman with Mr. Reed.

Mr. Hays of Arkansas with Mr. Rhodes of Arizona.

Mr. Donohue with Mr. Smith of Kansas.

Mr. Thompson of New Jersey with Mr. Jensen.

Mr. Lesinski with Mr. Cretella.

Mr. Diggs with Mr. Curtis of Missouri.

Mr. Gordon with Mr. Kilburn.

Mr. Powell with Mr. Williams of New York.

Mr. Roosevelt with Mr. Ayres.

The result of the vote was announced as above recorded.

Mr. VINSON. Mr. Speaker, I offer an amendment to the title.

The Clerk read as follows:

Amendment offered by Mr. VINSON of Georgia: That the title of the bill be amended to read as follows: To authorize the Secretary of the Air Force to establish and develop certain installations for the national security and to confer certain authority on the Secretary of Defense, and for other purposes.

The amendment was agreed to.

A motion to reconsider was laid on the table.

PERSONAL ANNOUNCEMENT

Mr. RHODES of Arizona. Mr. Speaker, I was necessarily absent from the floor at the time the vote was taken on the bill authorizing certain construction for the Department of the Air Force. Had I been present, I would have voted "aye."

AMINTORE FANFANI

Mr. ANFUSO. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from New York?

There was no objection.

Mr. ANFUSO. Mr. Speaker, I rise in this great body to deliver a very urgent message and to ask my worthy colleagues to take action before the fact.

Outside the borders of the United States, a man who fights for the things we believe in, with the same fervor and zeal as the best American statesman, is not an American. He is Amintore Fanfani, secretary general of the Democratic Christian Party of Italy. When the former great leader of Italy, and friend of the United States, Alcide DeGasperi, died, he left a will in which he bequeathed to Italy a legacy not of money but of hope for unity of the Italian people in order to serve the cause of freedom and peace.

In this will he clearly stated:

Amintore Fanfani is the only man in present day Italy with the ability to organize the Democratic Christian Party and lead it and the people of Italy against the threat of communism.

It was this same Fanfani who, only 2 days ago in a speech in Naples, spoke out against Khrushchev and the entire Soviet regime in these terms:

Italy is ready to negotiate with any country except those that have not yet given up the use of fifth columns in our country. No understanding can be reached with Russia as long as she persists in using Communist parties inspired by her to influence the politics and the fate of countries with which she wishes to negotiate. Russia cannot start a war without condemning herself to destruction. Khrushchev must choose: either he is a Communist desirous of subverting the world or he is a Communist desirous of preserving peace for his people. He cannot be both things. He will never obtain help and support from sensible people and from wise politicians by posing as a pacifist Russian while he is rearming with the secret aim of returning to be a Communist conqueror of the world when he has finished rearming.

I can assure this body that in view of what has occurred in recent months it was not an easy task for this great leader and friend of the United States to speak as he did. It was not easy for Amintore Fanfani to speak as he did at a time when the Italian people are subjected to an intensive peace offensive from Moscow, aimed at knocking Italy out of the North Atlantic Alliance, when the country is daily being threatened with atomic reprisals if she allows missile bases to be established on her territory.

It was not easy to raise a voice for freedom amidst the threats of the Communist Party of Italy—second largest in the world, second only to that of Russia—that Italy will become a candidate for extinction if atomic missiles are based on her territory.

The task was made more difficult by people in very high places who are even inside the Government of Italy, openly insisting that Italy declare a policy of neutrality.

Add to that the further recent Russian offensive of besieging the Vatican to accept a peace envoy as a permanent representative of the Holy See, and you cannot help but admire this great leader.

And speaking about a representative to the Holy See, this country must someday, soon I hope, remove the onerous distinction of being together with Russia the only two countries in the world without representation in Vatican City, which is without a doubt the greatest source of information and intelligence on earth.

But getting back to Fanfani and Italy—Amintore Fanfani spoke as he did because he sincerely believes that Italy's safety and future lies in an alliance of the free world against slavery and tyranny which are the only fruits of communism. Fanfani does not want Italy to be another satellite with an Iron Curtain around it. Fanfani wants its people to inhale the air of freedom and for Italy to be a partner and not a servant of other nations.

Amintore Fanfani has the respect of Members of this body on both sides of the aisle. During the presidential election here in 1956, Mr. Fanfani came here to study American politics, and was guest of President Eisenhower at the Republican convention in San Francisco, and of our great Democratic leaders in Chicago, which included such great statesmen as former President Harry S. Truman, our Speaker, Sam Rayburn; Senator Lyndon Johnson, majority leader of the Senate; Adlai Stevenson, Democratic presidential hopeful; Gov. Averell Harriman, of New York; Senators Kennedy and Kefauver; and our distinguished majority leader of the House, John McCormack. The only reason he met so many Democrats is because I am his friend and happen to be a Democrat. But he was too smart to get involved in any partisan politics in this country, and I am sure he must have met many more Republicans than I know about in San Francisco. As a matter of fact he went away from the United States as quietly as he came, without fanfare, without promising to anyone anything, but very much impressed with our form of government and the liberty which all of our people enjoy, and not just a privileged few.

At every opportunity he has proven himself a great friend of the United States, but an even firmer protector of the lives of the Italian people following his oath to DeGasperi that Moscow-trained Italians will never take over Italy.

Italians who love freedom as much as we do here in America, who place their faith in a supreme being do not want to, and if Fanfani can help it, would not be led to slavery by false Italian prophets like Togliatti and Negarville and others, who owe their allegiance not to the Republic of Italy, but to Khrushchev, the leader of the Cominform of the Soviet Union.

We here in America who know of the great sacrifices of this leader who has the best interests of his people at heart, and who know that communism is no more the answer for the people of Italy than it is for the people of the United States, laud this great man and pledge the help of this country's great resources and the strength of its people that Italy will never fall under the hammer and the sickle.

I say that this is the time, not after something disastrous happens, for us to show our genuine friendship for the people of Italy and to encourage Fanfani and his party to victory in the elections called for this spring.

It is for that reason that I am reintroducing today a resolution which I first introduced on February 9, 1956, and ask that the House Foreign Affairs Committee favorably report the same to the House with all due dispatch.

REDUCTION IN FORCE IN THE RESERVE PROGRAM

Mr. BROOKS of Louisiana. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from Louisiana?

There was no objection.

Mr. BROOKS of Louisiana. Mr. Speaker, recently Subcommittee No. 1 of the Armed Services Committee unanimously agreed to a resolution requesting the Department of Defense to notify the Secretaries of the military services to temporarily stay the further involuntary release of Reserve officers from active duty. The chairman of the committee agreed with the resolution and joined me, as chairman of the subcommittee, in a letter to the Secretary of Defense notifying him of our request.

During the past year the Department of Defense directed the military services to reduce officer strength. Although plans for this reduction were laid as far back as February 1957 no notification was given to my subcommittee, nor to the committee, and I personally only learned of these involuntary releases after Congress had adjourned and when complaints from Reserve officers were received in my office. This despite the fact that my subcommittee was in session on one matter or another until adjournment and that I have repeatedly urged the departments to bring their problems to us, or at least inform us of impending actions with far-reaching consequences.

Because this action was initiated and implemented when Congress was in adjournment the subcommittee took the position that it was only right and proper that the Department of Defense agree to delay the further implementation of the release program until such time as the subcommittee could convene and conduct an inquiry and make such recommendations as might be appropriate or advocate enactment of corrective legislation.

I have just been notified by the Defense Department in reply to our letter, that it would not look with favor on giving so much as a temporary delay to the involuntary release of these Reserve officers.

Mr. Speaker, in my 21 years in Congress it is difficult for me to recall a single instance when the military services have acted in such a cruel and despotic manner toward the officers serving in their ranks.

We are told that it is difficult to get young officers to stay in the military and make it a career. We are told that we are losing well-trained military men to industry. We are told that what we must do is increase the pay of all officers of the armed services and in that way we can entice our young men to stay in the military and make it a career. And, still, while we are being told these tales the military departments are systematically releasing qualified Reserve officers from active duty.

I, for one, am not advocating that officers be retained on active duty if they are not needed. Neither do I say that unqualified officers should be retained in the military services. But these officers are needed and they are certainly qualified.

Mr. Speaker, the officers now being involuntarily released from active duty are not youngsters who have only recently reported to duty and been found wanting. Quite on the contrary, these officers are highly trained, specialized, and qualified Reserve officers with as much as 17½ years of active duty.

These officers are being released to cvilian life at an age when it is extremely difficult to find other employment. Particularly so when the majority of their adult life has been spent in the military. They are being released with only a small readjustment payment to tide them over until such time as they can find means to gain a livelihood. They are being released within only a few years—sometimes a few months—of the time when they would automatically be retained in order to qualify for retirement benefits.

There is no industry in the civilian economy with which I am acquainted who would treat their personnel as these officers are being treated by the military services. Every protection is given Regular officers and protection is given to qualified civil-service employees, but the Reserve officer who has served his country faithfully and well, often in 1, sometimes in 2, wars is cast aside before he can qualify for retirement with hardly as much as a thank you for his services to his country.

As a consequence I intend to ask this subcommittee to draft legislation to insure that this type of treatment will not again be visited on Reserve officers. I am still in the hope that our subcommittee will be able to meet in the afternoon or at night to go into this matter before the first of February.

ESTABLISHING A NATIONAL COMMISSION ON ASTRONAUTICS

Mr. COAD. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from Iowa?

There was no objection.

Mr. COAD. Mr. Speaker, yesterday I introduced a bill which, if enacted, will establish a National Commission on Astronautics.

It is obvious that the United States is faced with a situation of grave peril. This situation has arisen basically from the lack of proper perspective on the part of Government leadership. We could have had, at this time, a greater technical achievement than any nation on

earth if we had fully utilized our resources and capabilities in a vigorous, sustained manner, without the waste of time and duplication of effort which has impeded our progress. Coupled with our failure to exploit our abilities to the fullest has been the appraisal which now appears to be correct that research in and control of outer space holds consequences of the greatest magnitude. In studying the intent of the Soviet Union, it is obvious that research in and control of outer space is an objective of that Government. It should now be obvious to us that the Soviets are serious in this intention, which is made clearly evident in the present superiority of the Soviet Union in the technology of rockets and missiles and the successful achievement in taking the first steps into the field of astronautics.

As a consequence, the United States stands today semi-naked and exposed from two directions. The first is the more immediate peril which we face over the next few years from perfected operational intercontinental ballistic missiles of the Soviets. But secondly, and equally perilous, is the long-range threat of unilateral control of outer space by the Soviet Union.

The more immediate threat requires that we must immediately initiate and prosecute a missile program which will guarantee that from now on we will possess missiles and rockets superior or at least equal to anything that any other nation may develop. This immediate problem is one of national defense, and is the vital concern of the Department of Defense. It must be expedited without delay. The bill which I present does not remove any defense item out of the Department of Defense. The military will continue to perfect its program and its missiles.

However, the need for a civilian Commission on Astronautics is evident. We are in dire need of promoting research into the problems of interstellar travel; of the benefits of manned space platforms; and of all other beneficial products of conquering the space beyond the reaches of this earth, in order that the people may profit thereby. If the fields of research, development, and operation are permitted to fall exclusively to the lot of the military, we are inviting, at the outset, the hostility of a space war.

The end result of the legislation which I offer is to assure the common defense and security of this country, to further establish the general welfare of our people, and to promote the interests of international peace.

In President Eisenhower's recent reply to Soviet Premier Nikolai Bulganin he stated:

> I propose that we agree that outer space should be used only for peaceful purposes.

The proposed National Commission on Astronautics is directed to this peaceful end.

There are three basic reasons for the passage of this bill.

First. To save time: A civilian Commission in the field of astronautics is not held by the redtape which binds the Pentagon in many of its decisions. Present "buildup—foldup" activities are time consuming. The space age is one which has been born in speed, and time is of the greatest essence. A civilian Commission, through coordinated and unified effort, would save time and advance a program into this new frontier. The matters which must be researched, developed, and operated could well be subjected to costly delay if this program is not released from military control.

Second. To save money: It is no secret that the Russians would like for us to spend ourselves into economic slavery. It is also no secret that we have been subjected to costly duplication in bringing our missile program to its present status. There has been no circulation of essential information, there has been obstinate rivalry and needless expenditure of funds because of this clumsy method of military operation.

The National Commission on Astronautics as a civilian commission would be organized to chart the various fields of endeavor, disseminate and circulate vital information, and avoid duplication of expense and effort.

Third. To save life: The knowledge of and the control of outer space will bring great blessings to man. The vast fields which will be opened up will bring commensurate benefits in the form of better communication, weather mapping, and general knowledge of our planet and the entire universe, which is vital to man's ever-increasing study of himself and his surroundings. By gaining leadership in this field, we can be assured that newfound knowledge will be used for peace.

Further, the control of space is vital to the future existence of a free people. The long-range threat of control of outer space by the Soviet Union must be met with a sensible, well-planned technical program which will insure that outer space will never become a bastion denied to the United States and used by our enemies to attack and destroy us.

The program I propose is sound, reasonable, economical, and capable of achieving the goals we seek. By planning on a long-range scale, we will avoid the very wasteful practice of starting and stopping, of duplication, and of other redtape extravagances, which have characterized so many of our development programs of the past. Because I believe that we must heed the wise counsel of the preponderance of this Nation's most able and talented citizens who tell us that whoever controls outer space will control the world; and because I feel that we must employ technological superiority in the pursuits of peace, we can do no other than be seriously set to the task of researching, developing, and operating this vital program in astronautics.

ARBITRARY RELEASE OF MILITARY PERSONNEL

Mr. ASHLEY. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from Ohio?

There was no objection.

Mr. ASHLEY. Mr. Speaker, last month I called to the attention of the Department of the Army a matter which is of fundamental importance and concern to the men and women serving in the Armed Forces of our country. I refer to the involuntary release from active duty of thousands of officers and enlisted men which has been ordered by the Secretaries of the respective services.

This policy is said to have been adopted in order to comply with recently announced manpower limitations, and it is being implemented—according to our Defense Establishment—by ordering the release of those whose loss would be least damaging to the accomplishment of the missions of the respective services.

Mr. Speaker, no one can question the shattering effect which this policy of arbitrary release from the service has had upon the morale of our Regular Army, Navy, Air Force, and Marine personnel. It is demoralizing not only to those who have been released after years of satisfactory duty, but also to those who remain in service with the insecure knowledge that they may be the next to go.

It is also clear, Mr. Speaker, that this policy has done a tremendous amount of positive harm as far as attracting competent career men into military service. And by so doing, the inevitable result has been to increase our reliance upon the draft and to perpetuate this device as the principal means of providing military manpower.

Recently there was called to my attention the case of one of my constituents from Toledo, Ohio, who had nearly 16 years of honorable service to his country. After serving throughout World War II, my constituent twice reenlisted in the United States Army. But when he attempted to reenlist last year, at the age of 48, he was arbitrarily rejected.

When I inquired into the reason for this action, I learned that at no time had this soldier been subjected to any form of military discipline. I was told, however, that on two occasions he had been reduced in rank because of inability to discharge the duties of a noncommissioned officer and that his I. Q. was lower than normal.

Here we have a graphic example, Mr. Speaker, of how this arbitrary policy is actually working This man gave 16 years of his life to the service of his country. On the two occasions of his reenlistments he was considered by the Army to have adequate intelligence and to be otherwise qualified for retention in the service.

But with only 4 years more for retirement, the Army suddenly turns this man out. At the age of almost 50, he is forced to return to a civilian life which is strange to him and to seek employment which, because of his age, is all but impossible to find.

The Army explains this action by including this man among those "whose loss would be least damaging to the accomplishment of their mission."

Frankly, Mr. Speaker, I question the validity of this explanation. I feel certain that as long as our military services continue to pursue this heartless procedure, which is so devoid of human values, the inevitable result will continue to be

the rejection of military service as a career by our young men and women. This can only lead to the costly, inefficient, and socially undesirable perpetuation of the draft as the principal means of supplying men for our Military Establishment.

I hope, Mr. Speaker, that the appropriate committees of the Congress will take action in this matter while there is still time.

PAY RAISE FOR CIVIL-SERVICE AND POSTAL EMPLOYEES

Mr. ADDONIZIO. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from New Jersey?

There was no objection.

Mr. ADDONIZIO. Mr. Speaker, our Federal civil-service and postal employees need more money.

It is an old refrain that I am presenting, but the central truth is still present. Let me quote just a few facts and figures. Time was when a Government job was sought after, not only because of the opportunity of service that it offered, but also because of the good pay and fine working conditions that Government employees used to enjoy compared with other groups in the population.

Today, all that has changed. Why? Because the pay of Government employees has not kept pace with the rest of the Nation's workers. Since 1939, the average salary of classified civil-service employees has increased 130 percent and that of postal employees has risen almost 145 percent, but they cannot compare with the increase in wages of workers in the manufacturing industries or even those in retail trade. The wages of the latter have risen 190 percent and those in manufacturing have more than tripled.

Looking at the situation from another viewpoint, let us take the prices of certain basic commodities. Since 1939, the price of rib roast beef and lamb has increased almost one-and-a-half times. Pork chops have increased even more—almost one-and-three-quarter times. Potatoes—a staple item on every grocery list—have almost tripled in price. Apples have risen two-and-a-third times, and coffee, as we all suspected, has skyrocketed—it now costs over four times as much as it did in 1939.

The picture is not completely black, of course. Prices of commodities other than food have risen much less; but food takes up more than a quarter of the money spent by the average family. For the modestly paid Government employees, price increases in food are felt more sharply than anything else.

The average letter carrier today makes $4,383. In most American cities, the average amount required to feed a family of four—a small family in these days of booming population—is well above that figure. Many fathers have to look for extra work after their regular job is finished. Often the mother has to work, with the result that the children do not receive the amount of attention they should have while they are growing up.

Though clouds of recession are hanging over us, we are living in prosperous times these days. In private industry, management and labor have been reaping their share of the rewards. But our public servants are neglected. And, as a result, the Federal Government is experiencing difficulties in hiring and retaining the type of personnel we need. Promising young men and women are going into private industry where their talents will be given opportunity to expand and earn their just returns.

Clearly an increase in the salary scale of Federal Government workers is called for. America is the richest, strongest nation on the globe. She deserves also to have the best of young talent that enters the labor market each year. But she cannot do this, nor indeed can she expect long to retain these faithful and devoted servants that she does have unless she gives them their just due. In all fairness, the pay boost should also include a retroactive provision making the raise effective from the time of the Presidential veto of the bill passed in the last session of Congress.

Prompt action is also essential on the bill reported just before adjournment to increase the pensions of retired employees. The Federal Government has a very real moral obligation toward its retired workers. Many of them devoted their entire careers to the public service, and now, through no fault of their own and because of circumstances over which they haven't the slightest control, they are feeling a severe economic pinch. The Government owes these people a fair and just livelihood.

America's public servants, active and retired, deserve to receive prompt relief from their predicament. I urge that priority be given the legislation in their behalf.

KNOW YOUR LOCAL SCHOOLS

Mr. BARDEN. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from North Carolina?

There was no objection.

Mr. BARDEN. Mr. Speaker, during the 6 weeks coinciding with the opening of schools and colleges for the fall term of 1957, the radio and television stations owned and operated by the National Broadcasting Co. in 8 cities launched a public service project called Know Your Schools. It was aimed at the foundation of our education system, the average citizen and parent, living in the neighborhoods of the schools and colleges to which we look to train our youth to take their place in life.

Know Your Schools had the organizing leadership of the NBC owned stations division, and was developed with the cooperation of the United States Department of Health, Education, and Welfare. It also has the endorsement and encouragement of such groups as the National Education Association, the National Congress of Parents and Teachers, the American Legion, and many more.

With that beginning, the Know Your Schools project was carried out by each NBC owned station within the community which it serves. The stations participating in this laudable endeavor were WRCA and WRCA–TV in New York City, WRCV and WRCV–TV in Philadelphia, WRC and WRC–TV in Washington, WKNB and WNBC in New Britain-Hartford, Conn., WBUF in Buffalo, WMAQ and WNBQ in Chicago, KNBC in San Francisco, and KRCA in Los Angeles.

The universal problems of education were examined in local terms by these broadcasting stations in cooperation with local school systems, colleges, parent-teacher groups, and citizen organizations interested in education. No master formula for solving the ills of education was prescribed. Rather, the energies of Know Your Schools went toward awakening greater citizen interest on the community level. The objective was to make the average citizen, and especially the parents, conscious of their responsibility for the proper education and training of the youth of our land.

The NBC owned stations utilized their "Impact Public Service" technique in the Know Your Schools project. Under this technique, for a given period of time a station places its full resources behind a single public service activity of interest to its community. In Know Your Schools, each station created one or more special program series, inserted features about education in suitable local programs already carried by the station, devoted saturation schedules of public service announcements to the subject, and organized station promotions. Virtually every broadcasting format known to the industry was employed. Altogether, the NBC owned stations contributed 200 hours of programs and 3,000 public service announcements—time and talent worth $1 million—to Know Your Schools. The most successful of these techniques will be documented and made available to other educators and broadcasters for duplication elsewhere.

In a letter to Mr. Thomas B. McFadden, vice president in charge of NBC owned stations, I stated the opinion that Know Your Schools would be an extremely useful service to the public in making it conscious of its responsibility to our youth. I added that—

I am definitely of the opinion that money alone—whether it be Federal or State and regardless of the amount—will not do even a fair job unless there is some way to reinforce the minds of the parents of America, which have been, to some extent, shaken and confused by wars and the effect of wars. That reinforcement could come from such mass information mediums as the NBC-owned stations to broaden the public's knowledge, quicken their senses of responsibility and arouse new interest.

I congratulate Mr. McFadden and the general managers of the NBC owned stations, and reiterate the editorial words of Radio-Television Daily, the broadcasting industry newspaper:

The impact of this public service programing has been impressive, not only to people in the educational field, but to people whose business is, in fact, the public good.

I am not only personally familiar with this undertaking but with some of the fine public-spirited gentlemen guiding it, among which happens to be one of my close friends and a neighbor, Mr. Don Bishop.

COMPENSATION IN FEDERAL LAND ACQUISITIONS

Mr. ADDONIZIO. Mr. Speaker, I ask unanimous consent that the gentleman from New York [Mr. TELLER] may extend his remarks at this point in the RECORD.

The SPEAKER. Is there objection to the request of the gentleman from New Jersey?

There was no objection.

Mr. TELLER. Mr. Speaker, I have today introduced a bill, H. R. 9994, to create a Commission To Study the Adequacy of Compensation in Federal Land Acquisitions. It is my hope that this bill can be given early consideration so that the Commission's findings can be furnished to Congress at the earliest possible time in order to assure payments commensurate with losses suffered by displaced persons and to establish a uniform set of standards for all United States Government agencies.

We have all heard complaints from city dwellers and farmers alike that they do not receive proper and sufficient payment for property taken for Federal use. There is apparently universal acceptance that many injustices are being done. It is small solace to a displaced person to be told that his Government recognizes the injustice, the inadequacy of payment, and his difficulty or inability to reestablish himself, but that at the same time it does not know how to correct these inequities. Yet that is what he is being told.

While the Constitution of the United States says that no private property shall be taken for public use without just compensation, there are many real losses suffered for which there is no compensation. The Federal courts have classed these losses as consequential damages a term that has become so comprehensive as to include the special value of property to an individual; the disruption or even destruction of a business and the loss of its goodwill; accelerated depreciation of machinery in moving from one location to another; new or increased interest charges resulting from the move; and the difference between the value of the property required for public use and the price that must be paid for a replacement site.

The awareness of the Congress to these problems is evident from the fact that we have authorized the Defense Department and the Urban Renewal Administrator to make limited payments for moving expenses. In doing so, however, we have not only not gone far enough, we have established dual standards. There is a different basis for the payments authorized in Defense Department projects from those allowed in urban renewal projects. While this limited reimbursement does not fully compensate those involved, no moving expenses can be paid by any other agency. The inequity suffered by those whose property is required for a post-office building or, for example, a civil airport such as that proposed for the Washington area, is thereby heightened. Nor do I think that the solution lies in extending authority piecemeal to other agencies as we proposed in passing H. R. 6940, now pending in the Senate, which would authorize reimbursement for moving expenses in reclamation projects of the Department of the Interior on the basis of the formula used in flood-control projects of the Army. An article appearing in the January issue of the Appraisal Journal, a publication of the American Institute of Real Estate Appraisers, serves to focus attention on the continuing piecemeal, and almost haphazard, approach to this subject. Entitled "Review of Efforts To Minimize Losses in Condemnation," by Milton A. Pearl, an attorney with the Department of the Army, the article discusses the need for action, the various proposals now pending before many of our committees, and comes to what I submit are these obvious conclusions:

> If the many committees of Congress studying the adequacy of compensation in condemnation cases continue their separate paths it will lead inevitably to a further divergence in the legislative authorization. Economies of time, effort, and money, plus the obvious desirability of having all Federal agencies acquire land under the same rules, indicate the benefits that will be derived if a halt is called to the piecemeal approach and the task of finding a solution is given to one group having no other responsibilities.

Mr. Speaker, in the basic struggle in which we are engaged today our greatest asset is the fairness, freedom, and good will of the democratic way of life. If we are depriving even a small percentage of our citizens of their property, without compensating them in full for all of their losses, we are defeating our own purpose. It is submitted that we must review this problem with the same sense of urgency that we must give to the development of missiles and to the acquisition of the land and the establishment of facilities for their testing, launching, and use. Because the present system of payment for land required by the Federal Government is inadequate and because the piecemeal approach to the solution of the deficiencies has created a lack of uniformity which must be halted, I have introduced for appropriate reference a bill that would create a commission composed of members from the legislative and executive branches and outstanding public and industry representatives to study the problem. As a step toward the early consideration and adoption of this measure I suggest a reading of the article I referred to a moment ago and request unanimous consent that this important contribution to an important subject be printed in the RECORD.

SOCIAL-SECURITY BENEFITS AT THE AGE OF 60

Mr. SILER. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from Kentucky?

There was no objection.

Mr. SILER. Mr. Speaker, ever since I became a Member of Congress in early January of 1955 I have personally sponsored legislation that would lower the age for social-security retirement benefits to 60 years for both men and women workers of our country. And now I have again introduced my latest bill to the same effect and on this same subject and my own bill has now been referred to the Ways and Means Committee of this body for its consideration and eventual action, as I hope.

As everyone knows, we are living in a time of machines and these machines have taken away the jobs of thousands of workers in my own Congressional District and all over America. Many coal mines have become so well equipped with modern machinery that the workers on their payrolls are just half as many as were formerly employed. One freight train crew can now haul twice the freight tonnage the same crew hauled a few years ago. Shop and mill working shifts of all kinds have been curtailed in the interest of more efficiency and in the name of continuing progress. No one desires to stand in the way of any of this progress. And so far as I know, no labor union in America has officially attempted to oppose installation of machinery anywhere in the country even though that machinery would certainly take the place of many workers when installed. But what could be the proper solution for all these job replacements by machines? Well, surely one effective solution would be an earlier retirement age for our workers. In other words, our workers could be taken from employment payrolls through an amended social-security law retirement age provision that would put some desirable monthly benefits in the pockets of these workers at the very same time. While a new and more efficient machine now gives a worker nothing but a kick in the pants and some advice to hunt himself another job, yet a new and more efficient amendment to our social-security law, if adopted by Congress, would give all our older workers past 60 some modest retirement benefits, and some opportunities to enjoy a few more happy years of free time before the end of life's journey.

What is social security? Well, it is something that does not cost the taxpayers or the Government anything whatever for the payment of any of its benefits, strangely enough. It is insurance, pure and simple. And insurance benefits always come from insurance premiums. If the risk is high, the premium must be high. If you take fire insurance on a paperboard house 2 miles from a fireplug, the policy cost, or the premium fixed, is necessarily high. But the fellow that wants to protect his house is always willing to pay the cost of protection and always wants his insurer to have actuarial soundness, at all times. So, all that is now needed for safe social-security benefits at 60 is for the provision of a suitable premium to be paid by employers and employees that will be commensurate with the added benefits.

From all my conversations with various people that would be affected, there is practically no objection among them for the added cost in view of the happy prospect of the added benefits.

We have heard much talk about our annual foreign aid that has already cost taxpayers over $55 billion. So now, what about a discussion of some American aid that will cost taxpayers nothing whatever?

In one of the great newspapers of the country, in its issue of July 11, 1956, there was a front page article emphasizing the impossibility of the average person over 45 years of age ever getting a job. A Labor Department survey shows, according to this article, that 3 out of every 4 employers ban middle-aged people. We all know this is true. According to the news article, there were then 47,400,000 people in America over the age of 45 years. But if we should provide social security benefits for workers at the age of 60 years, there would be many millions less people applying for these jobs and facing that vicious ban against the hiring of persons 45 years of age and over. Many would not seek or need these jobs at all since they would be able to live plain and simple lives in their little homes on the hills and up the hollows with some social security benefits coming in each month to keep the wolves of want away from their doors.

Moreover, if social security retirement at 60 years should become a general practice, there would be millions of job opportunities added for our young people all over America who are constantly coming out of the schools of the land. Every time a 60-year-old employee would retire, another job would be open for some willing youth of 18 or 20 years of age.

So, these are the stanch arguments for my bill or one similar, briefly summarized:

First. No cost to our taxpayers.

Second. Helping hand to our aging population.

Third. Additional job opportunities for our young people.

It is also worth while to observe that added social security benefits such as I have mentioned would inure to thousand of butchers, bakers, and candlestick makers throughout the country. Now money is a medium of exchange. So, added money is just added exchange that eventually finds its way into the hands of all who have anything to sell. Once upon a time, a man said he had loaned a football player a dollar. His friend asked if he ever got it back. "No," said the lender, "I only got a halfback on my books." Well, if we should increase social security benefits, many tradesmen and taxpayers could expect to get many real halves back in their cash registers through channels of trade and commerce. And I am not talking about football players—just plain old e pluribus unum, is what I mean.

The late Senator George of Georgia once stated, in talking about social security amendments pending before his retirement, "If we can get this through, then I am ready to go away from the Senate." So, perhaps it is proper for me to say, "If I can get my own social security amendment enacted into law to help our ordinary people, then I would be about ready to go away from the House and close my own career in that great body."

A REVAMPING OF OUR TEACHING METHODS IN THE PUBLIC SCHOOLS

Mr. GWINN. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentleman from New York?

There was no objection.

Mr. GWINN. Mr. Speaker, the big problem in education today is not Federal scholarships—it is not financial at all.

The anxiety over possible shortages of scientists and mathematicians is caused by the failure to teach the basic subjects of education that produce mathematicians and scientists. Until we correct that in our elementary and high schools, additional money and control by the Federal Government imposed on education will hinder and never cure the problem.

Thirty years ago in the public elementary school system, as well as in private and church-related schools, the subjects taught were the basic subjects only. They were grammar, spelling, memory tests, writing, English, composition, arithmetic, history, geography, and in many cases introductory algebra and elementary science.

For high schools, the subject matter was English, literature, composition, grammar throughout 4 years, history 2 to 4 years, mathematics up through trigonometry—many areas had 4 years—physics, chemistry, biology, foreign languages for everybody, especially those bound for college, music and art as electives, physical education worked in when it could be. The foregoing was a 4-year drill—the children had to master the subjects or drop out, in which case they went to work. There were few laws prohibiting children under 16 years of age working. There was comparatively little juvenile delinquency.

Now it is different, and herein lies the explanation of our trouble in mathematics and science, which scholarships for college will affect very little.

Only the nonpublic schools stuck to the above program of basic education. To show the public approval, private and church-related schools grew at the rate of 106 percent in the past 20 years, while public-school enrollments increased only 31 percent. The nonpublic schools have produced a normal number of mathematicians and scientists. Many, but not all public schools, by any means, departed sharply from the basic educational material, reduced the time for or eliminated entirely some of these basic courses in favor of progressive educational material, such as social adjustment, sociology, home economics, bird watching, nature study, field trips, and so forth.

Failures in scholarship and discipline followed as night the day. Lawlessness and disorder in the schoolroom resulted. The schoolteacher lost command of her class. Little gangs took over in many classrooms. Juvenile delinquency outside the classrooms naturally followed.

They were taught the fun courses, the easy courses—coeducational classes in cooking.

Until we teach the subjects that make scholars, offering Federal scholarships ignores the real problem. This is typical of the political materialistic approach. Its only cure is money. It lacks capacity to go to the substance of the cure for ineffective education. Indeed, the proposal will throw another imbalance into the educational system which the first big Federal aid program created, that is, the emphasis for easy money from the Federal Government, overemphasized vocational education—manual arts, boatmaking, furniture making, cooking, housekeeping, dressmaking, and the like.

The so-called progressive education now absorbs a very substantial part of every child's time and of course shortens the time left for basic education. What is more, it adds enormously to the cost. It probably delays the utilization of television so as to take advantage of the great teachers who may handle 250 students in a class, or even more, compared to 25 or 30 in a class under ordinary practice.

We must not, we cannot waste either the time or the money involved or delay good teaching if we are to increase the number of scholars in mathematics and science. Indeed, there is no showing that there is any boy or girl qualified to pursue studies in mathematics or science unable to do so for lack of money. Scholarships and loan funds at some universities are going begging for qualified students. If any real need develops we may look to the great foundations or industrial groups or other private sources. The Government is the last place to turn.

Under no circumstances would it seem desirable, after 40 years of defeating its efforts to let the Federal Government get not only the nose but the whole hump of the camel into the schools. Its excuse for doing so has always been a false politically manufactured crisis.

In one particular, and one only, do we recommend a 100-percent imitation of the Russians in education, and that is: Make a complete and clean sweep of progressive education out of our schools. The Russian Communists thought they were smart when they threw out the czarist basic education material. It was, next to the German, one of the very best in the world. The Russians thought they were equally smart to adopt American progressive education. They were horrified with the results. The children began to run the schools and boss the teachers and showed up badly in the examinations. In 1932 out went the American progressive education system and back came the czarist system of basic education. Oddly enough the United States Office of Education is itself the authority for this change in Russia.

It is important that we study at this late date our own variety of Government thought control, through our own type of progressive education still being maintained. Instead of correcting the weakness of our own education as the Russians did by throwing it out, what have the National Education Association and the United States Office of Education, in particular, done?

They have built up a kind of mythology about the public schools all over this country by means of radio, television, speeches, news releases, and magazine articles. The public has been deceived for a generation or more to believe that:

First. Class sizes are increasing and schools are getting more crowded. This impairs the quality of the children's education. There was, so to speak, a clamor for our particular educational system, never any question about the product itself.

Second. Teachers are so badly underpaid that they are quitting in droves to take better paying jobs in private industry; not enough young people study for teaching, and many of those who do, do not take teaching jobs or leave soon; the teacher shortage is getting worse all the time.

Third. Classroom construction is not keeping up with the increasing enrollments, a large part of the bond issues are failing, an increasing percentage of the children are being housed in makeshift quarters and the situation is approaching a crisis stage because States and communities have reached the limit of their financial capacity.

Fourth. The source of all our educational trouble was very simply represented to be, "not enough money." They claimed the people were spending more and more on all types of luxuries, for personal consumption, for sumptiously equipped homes, for more powerful cars, for building superhighways, and so forth, while the schools' share was getting smaller and smaller. The picture of the schools as a Cinderella is very touching—but it is a false picture.

Each of these claims—and you have seen or heard of them many times—are false. It must be a fact that the monopolistic forces in education; our principal sources of information about our nationwide education system are more to be feared than the nationwide labor monopolies. I intend to prove this to you now.

1. SCHOOL SUPPORT

Between 1900 and 1957 national income multiplied 24 times.

Public school expenditures multiplied—in current dollars—60 times.[1]

The population of the United States grew 126 percent.

Public school enrollment grew 116 percent.[2]

So, while school enrollment grew more slowly than the population, school costs multiplied 2½ times faster than national income.

If we convert school expenditures in 1900 into 1957 dollars we find they multiplied 16.6 times while school enrollment multiplied 2.2 times.

SEVEN TIMES MORE

So, we are now spending seven times as much per pupil—in constant dollars—as we did at the start of the 20th century. Are the children learning seven times as much? Obviously not. The indications are that they are learning less than they did half a century ago.

Most economic statistics of the Department of Commerce go back only as far as 1929; the most recent year for which annual totals are available is 1956. The comparisons I am going to give are between 1929 and 1956. Amounts for 1929 were converted into 1956 dollars by the "implicit price deflator for gross national product" of the Department of Commerce.

	1929		1956	Increase in percent
	Current dollars	1956 dollars		
	Millions	*Millions*	*Millions*	
National income	$87,814	$156,660	$343,620	119
National income by industrial origin:				
All private industries	81,911	146,129	301,481	106
Agriculture, forestry, and fisheries	8,278	14,768	16,084	9
Mining	2,048	3,654	6,050	66
Contract construction	3,808	6,793	17,704	161
Manufacturing	21,888	39,048	108,075	177
Wholesale and retail trade	13,358	23,831	57,874	143
Finance, insurance, and real estate	12,693	22,644	30,932	37
Transportation	6,636	11,839	16,713	41
Communications and public utilities	2,864	5,109	12,499	145
Services	10,338	18,443	35,550	93

HOW DID THE SCHOOLS FARE?

Public school expenditures [1]	$2,317	$3,788	$11,737	210

[1] School expenditures in 1929–30 were converted into 1956–57 dollars by the Consumers Price Index. Years shown are school years 1929–30 and 1956–57.

Sources of national income data: Department of Commerce, National Income, 1954, p. 176. Department of Commerce, Survey of Current Business, July 1957.

Sources of school data: Office of Education, Biennial Statistics of Education, 1953–54. National Education Association, Advance Estimates of Public and Secondary Schools, 1957–58.

Private industry supplies the growing requirements for goods and services of the total population. The schools are responsible for educating the pupils who are enrolled. Did enrollment increase more than the population?

Far from it:

Population July 1929	121,770,000
Population July 1956	168,174,000
Increase—percent	38

Source: Bureau of the Census, Statistical Abstract, 1957, and Population Series P–25, No. 169.

Public-school enrollment 1929–30	25,854,000
Public-school enrollment 1956–57	32,339,000
Increase—percent	25

Source: Office of Education, Enrollment in Elementary and Secondary Public and Nonpublic Day Schools, 1930–65, February 1957.

So between 1929 and 1956 the population of the United States increased 50 percent faster than public school enrollment. During that time private industrial income and outgo doubled; school expenditures more than tripled—in constant dollars.

None of the industrial groups did as well as the schools although industry had to take care of a relatively greater increase than the schools.

Remembering that school expenditures in constant dollars increased 210 percent between 1929 and 1956, it may be well to make a few other interesting comparisons.

	1929		1956	Increase in percent
	Current dollars	1956 dollars		
	Billions	*Billions*	*Billions*	
Personal consumption expenditures	$79.0	$125.2	$267.2	113
Corporate net profits	8.3	13.2	21.0	59
Personal income from interest and dividends	13.2	20.2	29.5	41

HOW DID PUBLIC EDUCATION COMPARE IN REGARD TO WAGE AND SALARY PAYMENTS?

Wage and salary payments:				
All private industries	$45.5	$72.1	$189.4	163
Public education	1.56	2.48	7.63	208

Source: Department of Commerce, National Income 1954, and Survey of Current Business, July 1957. Conversion of 1929 dollars in 1956 dollars: Consumer Price Index.

In amounts of money received and spent the schools have done much better than private industry, nonschool employment, personal consumption expenditures, or corporate profits.

But, there still is a great deal of talk about shortages of teachers and of classrooms. Let us review how the schools have fared with respect to teachers and classrooms.

[1] 1900 national income, $15 billion; school expenditures, $215 million; 1957 national income, $360 billion; school expenditures, $12.9 billion.

Sources: Office of Education, Biennial Survey of Education, 1953–54; N. E. A., Advance Estimates of Public Elementary and Secondary Schools, 1957–58.

[2] 1900 population, 76 million; public school enrollment, 15.5 million; 1957 population, 172 million; public school enrollment, 33.4 million.

Source: Bureau of the Census; Population Statistics; Office of Education, Enrollment Statistics, February 1957.

2. THE TEACHER SHORTAGE

There has been a vast amount of publicity about teacher shortages and growing class sizes. Most people do not know that actually the number of teachers has been increasing more rapidly than the number of pupils, and that teacher-pupil ratios have been declining.

This is what Mr. William G. Carr, executive secretary of the National Education Association, wrote not very long ago:

The number of teachers more than doubled between 1900 and 1950, while the number of pupils enrolled increased by two-thirds. The average number of pupils per teacher declined from a peak of nearly 37 in 1900 to 29 by 1940 and to 28 in 1950—America's Needs and Resources, the Twentieth Century Fund, New York, 1955, page 382.

What has happened since 1950?

In December 1957 the National Education Association published advance estimates of public elementary and secondary schools for the school year 1957–58, which show this picture of developments in the past 8 years:

	Instructional staff	Enrollment	Teacher-pupil ratio
1949–50	962,174	25,185,436	1:26.2
1957–58	1,329,551	33,508,814	1:25.2
Increase in percent	+38.2	+33.0	

So the schools have hired enough teachers not only to replace those who leave and to take care of the additional children but also to reduce further the teacher-pupil ratio during this period of unprecedented enrollment increase.

Meanwhile the percentage of so-called emergency teachers, that is those with less than standard certificates, dropped from 9.9 percent of all teachers in 1949–50 to 6.6 percent in 1957–58. This is remarkable because most States raised their certification standards. Teachers who could qualify in 1949 would be counted as substandard teachers in 1957.

There have been innumerable stories about teachers quitting the schools and taking better paying jobs, and about the schools being unable to find enough qualified replacements. I have just shown you that the number of teachers has increased 38.2 percent in the past 8 years. During that time all civilian employment increased only 10.8 percent—from 58.1 million in 1949 to 65.1 million in 1957. So it seems that in the final outcome the schools were able to attract and hire more than their proportionate share of the available skills.

How have the schools fared employee-wise over a longer period, compared with other industries?

	Full-time equivalent employees		Increase in percent
	1929	1956	
Public education	1,082,000	2,015,000	+86
All private industries	32,712,000	46,772,000	+43

Source: Department of Commerce, National Income, 1954, and Survey of Current Business, July 1957.

It is apparent that over the past 27 years, when enrollment increased proportionately less than the population as a whole, the schools enlarged their staffs at twice the rate of private industry.

The Office of Education has asserted that we are short 135,000 qualified teachers in 1957–58. This is based on computations which have been proven wrong in past years.

By release of September 2, 1956, the Office of Education estimated a teacher shortage of 120,700 in the school year 1956–57, based on a total supply of qualified teachers in that year of 1,195,400.

But by release of August 17, 1957, the Office had to admit that actually 1,252,700 qualified teachers were employed in the schools in 1956–57, or 57,300 more than estimated.

By release of September 8, 1955, the Office of Education estimated that the schools would be 141,300 teachers short in the school year 1955–56. This was based on a total supply of qualified teachers in that year of 1,115,700. By release of September 2, 1956, the Office admitted that actually 1,188,400 qualified teachers were employed in the schools in 1955–56, or 72,700 more than estimated.

Each year the Office of Education had estimated the new supply of qualified teachers at about 70 percent of the teacher graduates of the immediately preceding academic year. It disregarded the known fact that about half the qualified newly hired teachers graduated in earlier years, and enter—or reenter—the schools after some years of study, other jobs, homemaking, or military service.

So, even if we accepted the teacher demand estimate of the Office of Education at face value, the teacher shortage would be only half as much as the Office claimed. The demand estimate is based on a declining teacher-pupil ratio. If the schools maintained today the teacher-pupil ratio that prevailed in 1929–30—1:29.4 in the national average—there would be about 200,000 fewer teachers employed in the public schools, and teachers might have trouble finding jobs.

The teacher shortage is being artificially maintained by restricting access through the raising of academic requirements, by underestimating the supply, by adding more courses to the curriculum, and by demanding ever-smaller classes.

The public is being swamped with stories about teachers leaving their profession for industry. Actually, as we have seen, the ranks of the teachers have increased much more rapidly than those of private industry. Some teachers do leave the schools for nonteaching jobs. But all indications point to the conclusion that the reverse shift—from industry to teaching—is greater.

Not long ago, Dr. Harold Fields, vice chairman of the New York Board of Examiners found that 30 percent of the candidates for teaching licenses had full-time employment in business or industry at the time of taking the tests—the New York Times, September 16, 1956.

Another factor which accounts for the high teacher shortage estimates is the practice of the Office of Education to overestimate enrollment in the public schools. In each of the past 2 years the Office overestimated enrollment—releases of September 8, 1955, and September 2, 1956. When the advance estimates are compared with the actual figures, released a year later—releases September 2, 1956, and August 17, 1957—we find that enrollment was 578,000 and 475,500 lower than had been estimated.

But is there not a shortage of science teachers?

Secretary of Health, Education, and Welfare, Marion Folsom, in a memorandum published in the New York Times on December 31, 1957, stated:

There is a current shortage of more than 8,000 high-school science teachers and yet—of the 5,000 graduates prepared to teach science last year—2,000 went into industrial jobs rather than the classroom.

This statement by the Secretary of Health, Education, and Welfare that 40 percent of the high school science teacher graduates went into industrial jobs is incorrect.

The National Education Association, in its 1957 Teacher Supply and Demand Report—the Journal of Teacher Education, March 1957, pages 41–42—showed that only 59.4 percent of the 1956 high school science teacher graduates had taken school jobs. That does not mean that the other 40.6 percent are in industrial jobs. The report showed that only 10.1 percent accepted other gainful employment. The remainder is divided as follows:

	Percent
Military service	6.8
Homemaking	2.1
Continuing study	9.3
Seeking teaching job	1.0
No information	11.2
Total	30.5

The conclusions to be drawn are different if 10 percent take nonteaching jobs rather than 40 percent.

Moreover, the National Education Association reported that in 1956–57, 5,500 new teachers of science were employed by American high schools, although the higher institutions had graduated only 2,600 in the immediately preceding academic year—the New York Times, January 3, 1958. This means then that many persons left other jobs to teach science in high schools. Since high-school teachers on the average are paid more than college instructors—in 1955–56 the average college instructor earned $4,087, the average high-school teacher, $4,350—there may have been a shift from higher to secondary education. It should be remembered, however, that while college instructors may have a more thorough knowledge of the subject they may lack some of the necessary pedagogical credits, and be forced to obtain temporary licenses until their disability is removed. Most college or university instructors or professors in science would be classified substandard teachers in the public schools—National Education Association, salaries paid and salary practices in universities, colleges, and junior colleges, 1955–56.

It is true that the schools need more science teachers. Is this so because schools cannot afford to compete with industry for science teachers? The answer is a matter of record.

School administrators do not want to compete for science teachers.

The educational magazine the Nation's Schools took a nationwide sampling of school superintendents:

Should public schools compete with industry for the services of science teachers by paying science teachers higher salaries than are paid teachers of other subjects in the same school?

The reply of 84 percent of the superintendents was an emphatic "No"—the Nation's Schools, June 1956.

There have been numerous suggestions how communities can meet teacher shortages in certain subject fields. But it is apparent that what needs to be overcome is not the teacher shortage but the resistance of teacher organizations to the adoption of measures for meeting the shortage.

Dr. Alvin C. Eurich, vice president of the Fund for the Advancement of Education wrote in the Farm Journal, March 1956:

We'd have no teacher shortage today if we really made use of our superior teachers. But we are not doing it. We're wasting them, only part way using them.

Here are some of the methods he suggested:

Bring children together in larger groups when feasible. Use fewer and better teachers for larger classes. Use assistant teachers and cadets to handle routine work and classroom supervision and let the real teachers teach. Bring new tools into the classroom—especially television—so that children everywhere can have the top teachers, the best minds in the Nation.

Productivity has greatly increased over the years, in industrial as well as in professional fields. For example, far more people today are getting an immensely better medical care than in 1921 although the number of physicians per 100,000 population has remained stable—134 in 1921, 133 in 1955.

The New York commissioner of education, James E. Allen, Jr., stated at the New York State education conference on September 19, 1955:

Almost every other profession has developed methods and practices which permit the successful practitioner to be of wider service. By employing assistants and utilizing modern labor-saving devices and professional aids, members of other professions have been able to extend the sphere of their service and influence and improve the quality of their work. In the teaching profession, generally speaking, the opposite has been true. We have tended to limit rather than extend the services of good teachers. * * * The situation makes it imperative that we think in terms of maximum efficiency in the use of the limited number of teachers available to us.

Some of the methods by which teachers could be more effectively used are (a) television, (b) use of teacher aids, (c) use of teachers for more than 180 days a year, and (d) elimination of nonessential courses.

(A) TELEVISION

Editorial Research Reports—volume II, page 1057—found:

At least 47 different school systems presented instructional programs on television for classroom viewing during the 1956–57 school year. Approximately 80 colleges and universities have televised hundreds of courses, many of them for credit.

The Fund for the Advancement of Education has sponsored and supported the adoption of television teaching in many communities and States. It published a research report by a former school superintendent who estimates that about 100,000 teaching positions could be saved nationwide by the use of television—Alexander J. Stoddard: Schools for Tomorrow, An Educators' Blueprint, the Fund for the Advancement of Education, 1957.

The results of television education have been very encouraging. Students taught by TV have earned equal or better grades than those taught by live teachers.

(B) USE OF TEACHER AIDS

Teachers spend much time on unproductive paperwork, clerical, housekeeping, or custodial functions which could as well be performed by assistants who are either nonteachers or teacher apprentices. Teachers could then devote their time to instructing more children.

(C) USE TEACHERS MORE THAN 180 DAYS A YEAR

The average teacher works 180 days a year, 5 to 6 hours a day. Most other professional and working people spend between 233 and 243 days of 8 hours each at their jobs.

The average public school operates under 900 classroom hours a year. Even if teachers do a few chores after classroom time, they still work far less than the 1900 hours which professional or nonprofessional employees average in nonschool jobs. Which industry that claims to be short of specialized skills and expensive facilities would use them only two-thirds or three-fourths of normal working hours? Which industry could afford to give its employees 3 months off each year, at full pay, and use its plant 9 months out of 12?

Schoolteachers are working only part time. Why should they not work as many hours year-round as other people—and earn more money for doing so?

We are being told that teachers need long vacations to continue their professional studies. Do other professions—lawyers, accountants, engineers, architects, management and personnel executives, and so forth, not have an equal or even greater need for advancing their knowledge to keep up with progress in their respective fields? If they can do it on evenings, weekends, or during short vacations, why can't teachers do likewise?

If schools were open the year 'round, teachers could work about one-third more days and be paid proportionately higher salaries.

The plan most frequently suggested is the three-quarter year: pupils attend for three-quarters on a schedule staggered over 12 months. Simple arithmetic will tell that 1 million persons can do in 240 days what 1,333,333 can do in 180. So there is a tremendous possibility of getting along with fewer teachers and fewer classrooms, while at the same time paying teachers higher salaries.

This plan was on the program of the Governors' Conference in Williamsburg last June. Several States have set up study commissions to follow it up.

(D) ELIMINATION OF NONESSENTIAL COURSES

The December 1957 issue of the Journal of the National Education Association carried an article by a professor of home economics education at a State university; Boys, Too, Are Learning Homemaking. It said:

Homemaking classes, with boys, have become the accepted pattern in more and more of our junior and senior high schools today. * * * One year prior to the junior-senior prom, we were studying grooming, clothing selection, and social conduct.

Is that what we are sending our sons to school for?

All over the country, courses in marriage and family relationships, consumer education, date behavior, child development, etc., have been substituted for training in the essential disciplines. The number of courses has proliferated and in some of the large high schools they run to over a hundred. Some elective classes have 20, 15, or 10 pupils.

More and more curriculums resemble mail-order catalogs from which children are encouraged to select not what they ought to learn but what they would regard fun doing. Often there is an implied invitation—"If you don't see what you want, ask for it."

If the course offerings were reduced to a reasonable number of essential subjects, many thousands of teachers could spend their time teaching the children essential knowledge which is now sadly neglected. No purpose is served in adding more teachers unless we first eliminate some of the frills on which many teachers and pupils now spend much of their time.

Why has there been so little if any progress toward the adoption of the timesaving methods described in points (a), (b), (c), and (d)?

Because of the violent opposition of the teacher organizations. They call methods to save teachers' time educational nostrums to undermine adequate financial support of education; they scoff and sneer at them as panacea which must be firmly resisted.

The motives for this attitude are obvious: if timesaving devices were adopted, it would become apparent to the public that there is no teacher shortage but a teacher surplus. If schools were operated the year round or if they operated with the same teacher-pupil ratios that were used some 25 years ago, there would be several hundred thousand fewer jobs for teachers.

The drive for the lowering of teacher-pupil ratios and the opposition to timesaving methods are part of one vast featherbedding movement to create more jobs, maintain an artificial shortage and improve the bargaining position of the teachers. That teachers could earn more if they worked the year round as other people do, and that the schools then would be in a good position to hire better qualified teachers is immaterial to the paid staffs of the teacher organizations who are largely interested in recruiting more members from whom to collect more dues.

It has been claimed that smaller classes are necessary to give the children a better education. But there is no scientific evidence that children learn more in smaller classes. Last year, the Connecticut citizens for the public schools set out with the help of their State education department to prove that smaller classes resulted in a better education. They were very much embarrassed when they had to report that there was no correlation whatsoever between class size and pupil achievement. Nor did the amount of money spent per pupil affect educational achievement.

3. THE UNDERPAID TEACHERS

The "underpaid teacher" has become one of the most frequently used and abused catch phrases. If teachers are so grossly underpaid compared with other occupations, how were the schools able to increase their employment at twice the rate of private industry?

If nonteaching careers are more attractive, why is an increasing percentage of the college students going into teaching?

Between 1950 and 1956 the number of degrees conferred in teachers' education increased 24 percent while degrees in all other subject fields decreased 34 percent—Office of Education: Earned Degrees Conferred by Higher Educational Institutions, 1949–50 and 1955–56.

About three-fourths of all teachers are women. There are very few jobs which pay women as much as teaching. The Women's Bureau of the Department of Labor conducted a survey of the jobs which women college graduates of 1955 held in 1956.

It found that about two-thirds of the employed graduates were teachers. Only a few of those in other fields—fewer than 10 percent of all graduates—were in occupations whose annual salaries exceeded that of the teachers. They were nurses, social workers, chemists, mathematicians, and so forth. All of them work 11 to 11½ months a year. To compare their annual pay with that of teachers who work only 9 months does not seem fair. On an hourly basis, teachers did far better than any of the other professions.

Men generally have broader opportunities than women college graduates. A study annually conducted at Northwestern University showed that in fall 1957, starting salaries offered by large corporations which actively recruit on campuses averaged $401 a month. This applies to a carefully selected group of better-than-average graduates.

Minimum starting salaries for college graduates in major urban school systems in fall 1957 run about $4,000 per year; in some cities such as Detroit, San Francisco, and Los Angeles the minimum is $4,500. This is less than the pay of other graduates for working 11½ months. But on an hourly basis it is considerably more than the earnings of accountants, engineers, or other college graduates in private industry.

The Office of Education, in a pamphlet, Teaching Is an Attractive Career, pointed at the attractions of teaching:

The relatively short hours on the job, and the long summer vacations that are three times as long as those in any other major vocation.

College graduates have the choice of working longer hours and earning more money or becoming teachers. Why should teachers get paid as much as other college graduates for working only two-thirds or three-fourths as many hours? Why should we not rather seek a way of enabling teachers to work as much as others?

This does not mean that teachers as a group are overpaid, although some probably do get more than they are worth. But the story of the underpaid teacher who was left behind when everybody else was getting ahead is a myth.

Some teachers, to be sure, are underpaid. There have been many suggestions to pay good teachers more than mediocre or bad teachers. But the teachers lobbies are fighting suggestions that teachers ought to be paid as other professions are: by individual performance and merit. They want single, uniform salary scales which can be controlled by collective bargaining. Such rigid schedules are a perversion of the sound principle of equal pay for equal work. Bad teachers do not do work equal to that of good teachers.

4. CLASSROOM SHORTAGE

In the past 6 years Congress has held many hearings and filled thousands of pages with testimony on an alleged shortage of several hundreds of thousand classrooms.

In 1952 the schools were supposed to be short 325,000 classrooms; in 1954 the Commissioner of Education testified that the shortage totaled 370,000 and that by 1959 we would be short 470,000. Then, suddenly, it was found that the shortage would be only 176,000, and in fall 1956, the Office of Education claimed a shortage of 159,000 classrooms. The vast discrepancies in these figures alone indicate that they were arrived at not by evidence but a lively imagination.

In some States the number of existing classrooms is understated. For example according to circular No. 490, there were in Alabama, in the fall of 1956, 26,000 teachers and 13,240 classrooms, 2 teachers for every classroom. The long-range phase of the school facilities survey, 2 years earlier, had shown 19,750 classrooms in Alabama. This would suggest that 6,500 classrooms were abandoned in Alabama between 1954 and 1956 which is absurd.

In several States the number of classrooms constructed is understated. The New York Education Department wrote the Office of Education that it could not supply an estimate of a classroom shortage. The Office of Education thereupon substituted an estimate of its own, and included it in the claimed national shortage of 159,000 classrooms. The Office of Education seems to believe that it knows more about the needs of New York schools than the New York Education Department.

The Office of Education has stated that in fall 1956 the schools were overcrowded by 2.3 million children. It also referred to classes of 35 or more children but did not mention how many classes are conducted with 20, 15 or fewer children.

The Office reported that 840,000 children are on so-called double sessions, one group of children using a classroom in the morning, another group in the afternoon. Such use of school facilities is standard in the Russian schools. This does not seem to prevent them from turning out more scientists and engineers of high quality than our schools. In West Germany about half the children are on "double shifts" without any visible effect on the quality of education.

In the United States, according to the Office of Education, 840,000 children, fewer than 3 percent of the total enrollment, are on a double shift. They attend school for 4 hours instead of 5, which is considerably more than "half-time attendance" as is sometimes said.

The Office of Education in a leaflet The Stolen Years claimed that a child by attending 4 hours instead of 5 loses a full 2 months a year, and almost 2 full years of schooling. It complained that we "steal school hours and days and years from children," and thus "rob them of much more than time."

This is plain nonsense. Any school that wants to make up for the 1 hour, can do so easily by shortening vacations. There is no reason why children can't go to school for more than 180 days.

Nor would there be any harm in giving children more homework. This used to be customary; it still is—outside the United States—with the result that children learn more. But that would mean more work for the children and for the teachers who have to correct the lessons. Work is nowadays being looked upon by educationists and by the children under their influence as just an "old-fashioned affliction."

There is no factual substantiation for a shortage of 159,000 classrooms except the claims of some school administrators and the fictitious computations of the Office of Education. But there is plenty of evidence that our classroom situation is getting better every year and is superior to the conditions that prevail anywhere else.

By fall 1958 we shall have constructed 550,000 classrooms since 1945. About half of all children will be going to school in buildings constructed in the past 13 years. This is a record unequalled in American history or anywhere else.

What is the outlook? For a few more years the annual enrollment increase will exceed 1 million pupils. Then it will gradually drop to 800,000, to 600,000, and less by the late 1960's. The annual additions will then require fewer classrooms than now. If the present rate of construction of 70,000 classrooms a year is maintained, we shall be able to use the majority of them for the purpose of replacing old school buildings. Within 10 years, three-fourths or more of our school plants will be of postwar origin.

States and communities, if left alone, will continue to build the needed school plants. The claim that we are building more and more sumptuous modern homes, stores, and factories, and let the schools run down, is a perversion of the

truth. Here is the record of the changes between 1929 and 1957.

New construction 1929 and 1957

	1929		1956	Increase in percent
	Current dollars	1956 dollars		
	Millions	*Millions*	*Millions*	
Private residential	$3,625	$9,587	$16,530	72
Private nonresidential (industrial, commercial, utilities)	4,682	12,382	16,770	35
Total private	8,307	21,969	33,300	52
Public educational	389	1,029	2,830	175

Source: Department of Commerce, Construction Review, "Statistical Supplement," and November 1957.
Construction expenditures in 1929 converted into 1957 dollars by Composite Construction Index, Department of Commerce.

School construction increased more than twice as fast as the building of homes, five times as fast as the construction of factories, stores, and utilities. It grew more than three times as fast as all private construction. That does not seem to indicate a "neglect of the schools."

Two years ago Congress approved an enlarged highway program which, it was claimed, put the schools at a disadvantage. The Department of Commerce just released statistics which show that in the first 11 months of 1957 public educational construction was up 11 percent, highway construction only 7 percent—Construction Review, December 1957.

So, the schools still came out ahead.

The Secretary of Health, Education, and Welfare has stated that Federal aid is needed to help schools equip laboratories for science instruction. Are laboratories so expensive to equip? Dr. Elbert Little, executive director of the Physical Science Study Committee, was recently quoted as saying:

> There is no essential piece of equipment which a science teacher and his students can't build out of cheap materials. Apart from the initial outlay for the plant, the cost of laboratory equipment and supplies need run no higher than $10 per student. (Popular Science, November 1957.)

Cannot the schools afford to build the original plant?

The president of the American Association of School Administrators, Dr. Henry I. Willet, said this in addressing the 1956 AASA convention:

> I have found that our science laboratories are very similar to what they were 25 years ago, but this is not true of vocational shops, cafeterias, and similar activities, where we have the latest equipment. Even in some of the science laboratories of our new high schools, with all of the developments that we have had in recent years, I find the same equipment as a quarter of a century ago. (Official report of the 1956 AASA Convention, p. 144.)

It seems that some communities when building new schools are paying more attention to elaborate cafeterias, auditoriums, gymnasiums, and playgrounds than to science laboratories. That ought to be corrected locally.

There have been complaints that many school bond issues are being turned down by the voters. But the magazine, The School Executive, found in a nationwide survey:

> That the overwhelming number of communities in America, where school bond elections are held, vote in favor of raising funds to build new schools. (The School Executive, September 1957, p. 106.)

The Investment Bankers Association of America in its survey of the municipal bond market in December 1957 reported that voters had approved 85 percent of the school bond issues. That does not seem to be a bad record which should give us much concern. But some people apparently feel that everything the schools demand is sacrosanct and ought to be approved automatically. They do not believe that schools should be subjected to the same type of public control which applies to other government functions.

Several magazine articles in recent months—Holman Harvey, Do School Pupils Need Costly Palaces? the Reader's Digest, September 1957; Dorothy Thompson, Must Schools Be Palaces? Ladies Home Journal, August 1957—have pointed at the extravagance and waste in numerous school projects.

We know that thousands of good school plants have been built in recent years at costs between $20,000 and $25,000 per classroom. The chairman of the Georgia State school building authority testified last year before the House Committee on Education and Labor that they had constructed close to 15,000 classrooms at a cost of about $13,000 each.

But many schools are being built at costs between $50,000 and $100,000 per classroom, and in some cases even more. Is it any wonder when the voters turn down some of those extravagant projects? Sometimes the auxiliary facilities cost as much or more than the classrooms. There is nothing wrong with gymnasiums, auditoriums, or swimming pools. But the essentials must come first.

One school recently put wall-to-wall carpeting in the classrooms—The Nation's Schools, June 1956, page 66. I am not sure by how much this will improve the spelling or the arithmetic of the children. But the parents sometimes do use arithmetic, compare their modest homes with the proposed school palaces, and turn down the bond issue.

It is easy to see what would happen under a Federal-aid program which would render control by the local voters less effective or nonexistent.

A subcommittee of the House Appropriations Committee 2 years ago investigated the administration of Public Law 815 which authorizes grants for school construction in Federally affected areas—Departments of Labor and Health, Education, and Welfare Appropriations for 1957, hearings before the subcommittee of the Committee on Appropriations, 84th Congress, 2d session, June 6, 1956. Under the law, the entitlement of the several States is supposed to be based on actual construction costs. But the investigators found that in some States where actual construction costs per pupil had been between $613 and $655, the Office of Education approved entitlements of $1,030 to $1,070. The responsible administrator in the Office of Education explained at the hearings that their architects and engineers felt that complete schools just could not be built for an average of $660 per pupil.

In other words, although the State was building school plants at that cost, the Office of Education decided that this could not be done and gave the State about 60 percent more.

WHY FEDERAL AID?

The record of school support is clear and overwhelming: The American people have supplied the schools with ample funds to provide a good training in the essentials of education for their children.

There is no substance to the oft-heard charges of a growing margin of luxury outside of education and impoverization of the schools, that "while our cars have grown longer, our television screens broader, our washing machines grander, our kitchens brighter, at the same time our schools have grown more dilapidated"—Adlai Stevenson, Vital Speeches of the Day, December 15, 1957, page 133. Such distortions of the truth are refuted by the simple facts that school expenditures have risen more rapidly than personal consumption expenditures, that teachers' salaries have increased faster than other wages and salaries, that school construction went up more than twice as much as home building.

The conclusion to be drawn is inevitable: the deficiencies in our educational system are the result not of lack of funds but of misapplication of funds.

The American people are taxing themselves heavily for the schools and school taxes are increasing steeply all over the country. State legislatures, in 1955, enacted the biggest tax boosts in a generation. At their 1957 sessions almost half of them again raised taxes. The greater part of the proceeds was appropriated for education.

The school forces raise the cry that our educational effort is not strong enough and that greater sacrifices are called for. There is some truth in that.

But do they mean that those in education ought to put forth a greater effort, that teachers and students ought to work harder? Do they mean that teachers might sacrifice their accustomed 3 months' vacations—not for free but for good pay—and work as long as other people? Do they mean, that pupils ought to be made to study harder, do homework, live up to scholastic standards?

They do not. When the educationists talk about greater educational effort and sacrifices they mean everybody else but themselves.

You may recall Mark Twain's saying that to be good is noble, but to tell others how to be good is nobler and less trouble.

The American public is being subjected to an avalanche of propaganda by the National Education Association and its branch at Third and Independence Avenue, the United States Office of Education. They are trying to prove that the schools need more of everything

and that this can be provided only by the Federal Government.

Vice President RICHARD NIXON expressed the conviction of the American people in a speech in New York on December 15, 1957:

> Whether it takes more classrooms, better teaching salaries, fewer frills, more algebra, and less square dancing, this responsibility cannot be passed by the people to Washington.

Despite this statement by the Vice President we are now faced with new proposals for Federal aid to education. Is it because the people want to pass this responsibility on to Washington?

The record proves otherwise. The American people are perfectly willing, able, and insistent that they want to keep their schools at home—not get them run from Washington.

No State legislature has petitioned Congress for Federal aid to the schools. But several State legislatures have petitioned against it.

The representatives of the governors on the joint Federal-State action committee which was created last year at the suggestion of the President, have resolved against an entry of the Federal Government into the school field by way of general subventions. The governors and the legislatures presently have the constitutional responsibility for raising the necessary funds for the schools. Since they are willing to bear it, why should Congress interfere?

Those who are charged with the direct responsibility for the management of the schools, and for raising a major part of the money, are the 50,000 State and local boards of education. They have the tough job of boosting taxes, passing bond issues, and taking the criticism that goes with this responsibility. Not one of them, nor even one of the more than 200,000 members of such boards, appeared to testify in favor of Federal aid at the hearings which the House Committee on Education and Labor held last year.

A number of State and local boards of education did appear at the hearings to tell the committee that they saw no need for Federal aid to the schools, and that it would be detrimental to the best interest of the schools.

The National School Boards Association, at its annual convention in Atlantic City last February turned down a resolution that would have favored Federal aid.

Who then is really behind this drive for Federal aid to the schools? Obviously, the schools and those who are de lege and de facto responsible for their management and support are opposed to it.

First, there are some do-gooders whose insatiable appetite for spending other people's money leads them to support every expenditure of public funds.

There are others who deliberately want to socialize the schools so as to transform them into an instrument for indoctrination with various "isms." They know that this cannot easily be done as long as the schools are controlled by local communities.

But the main force behind these machinations are the paid staffs of some of the teacher organizations, the powerful teachers' lobbies.

In no other field would an employee organization claim to represent the industry itself. It would not occur to anybody that industrial unions represent management rather than the employees. The remarkable thing is not just that teachers' organizations claim to speak for the schools. The really amazing thing is that many persons in the administration, in Congress, and in the press seem to recognize teachers' unions rather than the boards of education as the voice of the schools.

We are faced here with a group of employees who are claiming that their employers need Federal aid when neither their employers nor those who bear the final responsibility, legislatures and governors, have said so.

This is a conspiracy of the paid staffs of teacher organizations who are trying to justify their salaries to their members. The National Education Association has grown in the past 10 years from 386,000 to over 700,000 members. Its income from members dues has swollen from $1.1 million to $7 million. They have built themselves the most palatial office building in Washington from which to carry on the fight.

When the appearance of the sputniks dramatized the relatively greater educational advances of the Russians, the educationists tried to turn a neat trick: to deflect public attention from shortcomings of their methods and blame all educational deficiencies on lack of money.

A major danger in the Federal-aid proposals is the underlying assumption that another $250 million or $500 million or $1 billion will correct the defects in our education and keep us ahead of the advancing Russians. Nothing could be further from the truth. To believe that an appropriation could cure the ills would be a snare and a delusion. No amount of money can make up for the lack of hard study, the decline in scholastic standards, the breakdown of discipline in the schools.

THE REAL EDUCATIONAL DEFICIENCIES

The crux of our educational problem is the substitution of easy courses for the hard core of subject matter.

The Office of Education and its Commission for Life Adjustment Education have been and still are the leaders in this movement. With so much life-adjustment education, we would expect the children by now to be wonderfully adjusted to life. If so, crime statistics fail to bear it out. Each year the FBI reports a steep and disproportionate increase in juvenile crime. Almost half of all arrests concern persons under 18 years.

The New York Daily News very aptly called the new three R's "rowdyism, riot, and revolt."

This is the product of 20 years' life-adjustment education.

The Secretary of Health, Education, and Welfare for at least one in that Department seems to realize what really ought to be done in the schools. In a speech last November 12, he was quoted as advocating "less chrome and country-clubbing" in the schools, and dropping "so-called popular or easy courses to allow more emphasis on basic subjects"—the Washington Post and Times Herald, November 13, 1957.

If that were done, teachers, classrooms and time could be used to teach science, mathematics, and foreign languages their proper field instead of date behavior and family relationships, a more proper field for families.

It is a mystery to me why the Secretary now advocates that we pour Federal money into the schools instead of correcting the basic shortcomings in the curriculum which he himself mentions.

Does it cost more to teach mathematics than square dancing? Is foreign-language training more expensive than consumer education? Does science instruction call for higher outlays than the numerous fancy courses to increase social competence for which high schools give credit toward graduation? If the schools cut back on the frills and reinstate learning to its proper place, there will be no additional cost.

Let us not avoid taking a good look at the quality, character, and content of public education before we buy more of the same thing.

I agree with the Secretary that the schools ought to place greater emphasis on mathematics. If they do not, scholarships to college will go begging. The Educational Testing Service in Princeton found this situation:

> In a survey of 211 prospective elementary teachers, 150 reported a longstanding hatred of arithmetic. * * * Future teachers pass through the elementary schools learning to detest mathematics. They drop it in high school as early as possible. They avoid it in teachers colleges because it is not required. They return to the elementary school to teach a new generation to detest it. (Time magazine, June 18, 1956.)

Are we going to correct this with an appropriation of Federal money?

We believe in the great benefits of competitive effort. Let us look closely then to see what the Soviets accomplish by long hours of hard study, strict standards of achievement, selection of the abler students and teaching them up to capacity to achieve stressing excellence rather than mediocrity and rejecting completely equality in capacity for learning.

Adm. H. G. Rickover said last November 22 in Detroit:

> It is time we face up to the fact that few American students at age 21 or 22 know as much after a 4-year college course as most European secondary school graduates know at age 18 or 19. (U. S. News & World Report, December 6, 1957.)

Will that be improved by a new federally aided testing program? Will that program tell us anything that presently available tests—and a good system of grading and report cards—will not tell us? Are we going to get better products from our high schools and colleges by adopting a Federal system of scholarships?

There are scholarships available at the present time for able students who are willing to work hard. Ample loan funds

are available in higher educational institutions which are inadequately used. It seems that young people nowadays are eager to borrow and go into debt for any purpose except an education. If young people are not willing to invest in themselves, if they have no confidence in their ability or are unwilling to work hard and strain their efforts—why should anybody else?

Our own tradition in education proves that when the people are convinced of what needs to be done that our genius for education is in the midst of our people—and always has been. It is not in the Federal Government.

PROPAGANDA FOR GATT AND OTC

The SPEAKER. Under previous order of the House, the gentleman from West Virginia [Mr. BAILEY] is recognized for 30 minutes.

Mr. BAILEY. Mr. Speaker, now that the President, in his state of the Union message, has asked the Congress to extend our present Reciprocal Trade Agreements Act for 5 years and demands added authority to further lower our tariff duties, it is both fitting and proper that the Congress should know of the despicable and desperate propaganda that is being resorted to in an effort to lead America into membership in the General Agreement on Tariffs and Trade, and to lower by 25 percent the present import duty protection for basic American industries against excessive imports.

The Department of State recently issued a booklet entitled "Together We Are Strong," printed and distributed at public expense.

This booklet is nothing more nor less than outright propaganda in support of GATT and the OTC.

These are both highly controversial subjects and the Congress itself is divided on the issue. Yet here we find the State Department using money appropriated by the Congress from public revenues derived from all the people to peddle one side of the story and ignoring completely the other side.

I do not believe that the State Department is justified in expending funds derived from all the people to propagate a policy of the State Department which is actually bitterly opposed by many of those whose tax payments help to sustain that Department.

As an example of the biased character of the pamphlet, let me cite some of the data and conclusions contained in it.

On page 3 under the caption "World Trade Affects You," the question is asked, "How would you be affected if the United States stopped trading with other nations?"

This is followed by examples of the dire straits the people of this country would be in if they could not import. To quote:

> In our (hypothetical) tradeless world there is (would be) no coffee on your breakfast table, nor cocoa, nor tea. You can't (could not) buy chocolate or tapioca, or Brazil or cashew nuts. Spices like pepper, cloves, and mustard have (would have) just about vanished from your pantry shelves. Olives, olive oil, lobsters, tuna fish, sugar, figs, bananas, and dates are (would be) more expensive now, and sometimes your grocer doesn't (would not) have them at all.

Then the booklet points out that about 75 percent of the newsprint used by newspapers in printing their news is imported and an equal share of bauxite—the ore from which aluminum is derived.

There would "be no new car to replace the aging 'family buggy' if all imports were cut off," the report says. It lists over 30 different materials required for automobile manufacture of which we import substantial quantities. This is followed by a list of some 30 minerals in which our dependence on imports is anywhere from 10 to 100 percent.

It is, of course, a complete distortion of the case to suggest that anyone advocates shutting off all imports. Everyone knows that this country is not self-sufficient and that we need imports. However, our trouble has not been with inability to buy the materials we need. Quite the contrary. The trouble has arisen over exporting more than we need to import.

At the same time we should be delighted over such self-sufficiency as we do have. We learned a lesson on this score from the Egyptian seizure of the Suez Canal. Certainly we should not strain to become more dependent upon foreign sources of supply by letting unfair imports destroy those of our own industries that some economic theorists regard as inefficient on the sole ground that any domestic industry is inefficient if it cannot compete with low-wage import competition. The countries that are heavily dependent on imports must regard our relative independence with envy and no doubt look upon the efforts of our freetraders to create more and more dependence on imports for us as the product of wayward thinking.

There is a further comment to be made on the list of items used by the State Department. Nearly all the important products of commerce found in that compilation are on our free list. The question then arises what moved the State Department to list these products unless it could have made no impression and no case without doing so. The fact is that no further tariff reduction or liberalizing of trade in these items could possibly increase our imports since there is no duty to be taken off. Among them are coffee, newsprint, tin, copper ore, bauxite—aluminum ore, cocoa beans, tuna fish—frozen, bananas, tapioca, lobsters, and pepper.

By listing these free-list items under a warning of the deprivations that would afflict this country if we stopped imports a wholly false impression is created. To lead unsuspecting readers to think that a protectionist tariff policy would cut off these imports or even reduce them materially represents deceptive propaganda of a low order and should be stopped. More than that. The State Department should be called upon to explain how such a pamphlet came to be written and distributed in the first place.

The obvious purpose of the pamphlet and of listing certain products within a context that hides their free-list status and then picturing our great dependence on these products, is to suggest that unless the United States stays in GATT and joins the OTC we will find our trade cut off by protectionist forces. This is a gross misrepresentation of the facts and it is shocking to find a foremost executive department resorting to such unworthy tactics.

While thus depicting our plight of dependence on the rest of the world for certain materials, the most important of which, to repeat, are on the free list, the pamphlet calls attention to our exports and the importance of our export market to various agricultural products, such as wheat, cotton, rice, soybeans, fats and oils, and such industrial products as civilian aircraft, railroad cars, sewing machines, textile machinery, machine tools, and so forth.

Now, in making a plea for importation of various raw materials, the pamphlet warns that our own resources are subject to exhaustion or to more costly production if we continue to rely on the domestic supply. Has it occurred to the State Department that when we export civilian airplanes, tractors, automobiles, industrial machinery, and so forth, we are also draining our own natural resources? Should we not then stop such drainage? The Department does not suggest this.

We are told to import because we want to export; but we are also told to import in order to avoid exhausting our natural resources. Yet the more we export the greater the drain on these resources. The reason we need to import more seems to be because we are already exporting more than we are importing. We also need to import more, apparently because we cannot live without imports and we must export in order to make sure that we can buy what we need from other countries. If this seems confusing the blame lies with the State Department's position.

Yet this is not all, for the pamphlet says that if we do not keep up our exports we will have unemployment; and unemployment in export industries is very bad because for every man laid off because of lack of a foreign market, the doctor and dentist also suffer, no less than the banker and the merchant, the farmer and the movie owner.

That this would be bad cannot be questioned but the pamphlet is completely silent on what happens when imports cause unemployment. Is the unemployment attributable to a fall in exports any worse than the unemployment that is traceable to imports? The pamphlet says nothing about the latter type of unemployment. This omission again shows the bias of the publication. Yet unemployment caused by imports is more disruptive than that caused by a decline in export orders. This is because imports often undermine domestic prices and also because import volume is not under domestic control as is production for export.

The fact is that if the volume of our imports is to be determined by our exports or our desire for foreign markets, we forsake the most natural yardstick

for determining what our imports should be. This should be the need of the domestic economy. What we need by way of imports bears little relationship to what the Government does in the field of international politics. Yet that is what the State Department proposes as the yardstick; and that is the sure road to state trading.

All the intermediate arguments used by the Department, such as our dependence on imports, the value of exports to our agriculture, and so forth, are nothing more than grist for the final grinding conclusion; and that, as just stated, is to use our foreign trade as a pawn of diplomacy. Domestic industry and agriculture are to be regarded as expendable ammunition stored in the State Department's armory, where they become pawns in the game of international politics.

Otherwise so distorted a treatise on our foreign trade as the one presented in the pamphlet "Together We Are Strong" would be wholly unintelligible. As an effort to make a case for State Department control over our foreign commerce it at least offers an argument, lopsided and deceptive though it is.

That the administration is tied into this one-sided propaganda campaign is evidenced in the President's state of the Union address. Under his remarks on mutual trade, I quote:

> 4. Both in our national interest, and in the interest of world peace, we must have a 5-year extension of the Trade Agreements Act with broadened authority to negotiate. World trade supports a significant segment of American industry and agriculture. It provides employment for 4½ million American workers.

His biased position is evident when he fails to tell the American people and the American industries affected how many American jobs are lost and how many more we will lose if we give him authority to further open our ports to the influx of cheaply made foreign articles, many of which are made under prison labor standards.

Another sample of how the White House is involved in this propaganda is found in today's press. Here is an article that says the President has employed Eric Johnston, at the taxpayers' expense, to "rally the faithful" by organizing a march on Washington and the Congress.

This mass gathering may rival in number Cox's Army and the veterans' visit to Washington in the Hoover administration. Of one thing we can be sure, they will not come afoot or on freight cars; they will not have to live in tents and shacks; they will put up at the luxurious hotels; there will be no troops to "chase them out of town"; they will dine at the White House.

They will converge on the Capital City by air. Some may even come from outer space. They will be headed by the well-known lobbyists Charlie Taft and Daniel W. Bell. Chief among the pilgrims will be representatives of General Motors and the Ford interests, the bulls and bullsies from General Mills, and from the handful of special interests engaged in export trade who are presently reaping the benefits from our misguided and unfair trade policies.

I must say that after examining this pamphlet I feel very apprehensive about entrusting our relations with other countries to State Department personnel if this is a representative example of their competence, honesty, and statecraft.

It is just possible when the great Eric arrives he may have some new ideas of propaganda, none of which will be for the benefit of our small basic producers. Members of Congress must not be misled by the same kind of wishful thinking that we heard before the depression of the late twenties, when we were told that prosperity was just around the corner. Do you remember back in the late twenties when we were lured into thinking that we were not in difficulties from an economic standpoint?

May I say at this point that I am more concerned and more worried over the mounting unemployment lists than I am over satellites. If unemployment in this country reaches, as it is estimated it might reach, 6 million by June of this year, we will be forgetting about some of the things Congress just concluded doing today or in this session. One of the best ways I know of that you can continue this slide toward a depression is to just go ahead and renew these trade agreements, and while some 10 or 12 of our big importers in this country are reaping the benefits 140 to 150 small basic industries are being driven out of business. One of these days you will be waking up and finding yourself a nation of importers rather than a nation of producers.

TRINITY RIVER PROJECT IN CALIFORNIA

Mr. GUBSER. Mr. Speaker, I ask unanimous consent to extend my remarks at this point in the RECORD.

The SPEAKER. Is there objection to the request of the gentleman from California?

There was no objection.

Mr. GUBSER. Mr. Speaker, just today I have learned that another very important portion of my district is interested in early construction of the San Luis project. This is the area known as Santa Cruz County.

I have previously introduced a bill which is identical to that introduced by my colleague from California, the Honorable B. F. SISK, except that it would further extend the service area of the San Luis project to include Alameda, Santa Cruz, and San Benito Counties. Now that Santa Cruz County has indicated a desire to be included I believe we have an even stronger argument for passage of a San Luis Reservoir bill with extended service to my area. I sincerely hope that the San Luis project with my amendment will be authorized at this session of Congress.

REQUIRING CONGRESSIONAL COMMITTEES TO BUDGET AND ACCOUNT FOR THEIR EXPENDITURE OF COUNTERPART FUNDS

Mr. DAWSON of Utah. Mr. Speaker, I ask unanimous consent to extend my remarks at this point in the RECORD.

The SPEAKER. Is there objection to the request of the gentleman from Utah?

There was no objection.

Mr. DAWSON of Utah. Mr. Speaker, early in the 1st session of this 85th Congress, I introduced a bill to require Congressional committees to budget and account for their expenditures of counterpart funds.

At that time, my proposal came on the heels of the shocking disclosure that two employees of the other body had taken a high, wide, and handsome excursion to Europe on these funds—a scandalous misuse of public moneys which damaged us all in the public's mind.

No action has been taken on that bill, H. R. 4764, to date. An effort to amend it into the Mutual Security Act received heartening support on this floor, but failed to carry.

Now our failure to act is haunting us again. This time it was an employee of one of our own House committees who took a trip to South America, drawing $1,832 from counterpart accounts. Whether his purpose was official business or sightseeing is in some dispute, but the publicity has again aroused public suspicion of all Congressional investigative tours.

What else can we expect as long as we fail and refuse to require full disclosure of how our committees spend counterpart funds?

Please understand that I favor the use of foreign currency to defray expenses of committee investigations abroad. With a few scandalous exceptions, I am sure counterpart funds so spent have been spent wisely. I do not propose to hinder legitimate investigations and my bill would not hinder them.

My bill would only make the amount of counterpart funds spent by committees deductible from, instead of supplemental to, the appropriations we set up to cover the respective committee expenses.

Under the present procedure, every committee has a blank check for the expenditure of counterpart funds. True, the expenditures must be accounted for, but not until after they have been spent. Unlike the meticulous precautions we take with other public funds, we are not required to justify and budget these foreign moneys which belong to the taxpayers of the United States.

It is only natural that funds spent first and accounted for later are spent more easily, are harder to keep tabs on. Small wonder that we are embarrassed by an occasional scandal, or that the people wonder why we are so reluctant to impose upon ourselves the commonsense restrictions which would prove we have nothing to hide.

We are all aware that as never before in our Nation's history it is important that we get every cent's worth of value we can out of every dollar we spend. I hope this Congress is going to set the proper example by enacting H. R. 4764.

RESERVE OFFICERS

Mrs. ROGERS of Massachusetts. Mr. Speaker, I ask unanimous consent to address the House for 1 minute and to revise and extend my remarks.

The SPEAKER. Is there objection to the request of the gentlewoman from Massachusetts?

There was no objection.

Mrs. ROGERS of Massachusetts. Mr. Speaker, I am delighted, as the distinguished Member from Louisiana [Mr. BROOKS] stated, that the Committee on Armed Services is taking up the very reprehensible situation that exists in connection with the forced resignation of Reserve officers. It is causing undue hardship and I am extremely sorry that the Defense Department refused to stop the RIF's until legislation could be passed. I deplore that and hope they will reconsider the matter. Our Reserve officers have done a large part of the fighting in the recent World War and in every other war. They deserve better treatment.

A SMALL BUSINESS TAX BILL

The SPEAKER pro tempore. Under previous order of the House, the gentleman from Texas [Mr. PATMAN] is recognized for 30 minutes.

Mr. PATMAN. Mr. Speaker, H. R. 9957, the small business tax bill I introduced yesterday would provide a measure of adjustments in our tax structure so that the provisions of the Internal Revenue Code of 1954 will prove more equitable in their application to small-business concerns.

This bill has the support of a majority of the members of the House Small Business Committee. My colleagues, Hon. JOE L. EVINS, Hon. ABRAHAM J. MULTER, Hon. SIDNEY R. YATES, Hon. TOM STEED, Hon. JAMES ROOSEVELT, and Hon. CHARLES H. BROWN, have joined me in this action by filing identical companion bills and in urging favorable consideration of this bill. Since it is one of the most carefully worked out, and, in our considered judgment, one of the best small business tax bills to be presented to the House, it is anticipated that all members of the House Small Business Committee will come forward and join in this action of urging prompt and favorable consideration of these proposals which provide assistance to small business in the area where small business has been subjected to an oppressive tax burden.

The bill is as follows:

Be it enacted, etc.—

SECTION 1. Declaration of purpose and policy.

It is hereby declared to be the policy of the Congress and the purpose of this act to promote and facilitate the growth, expansion, and modernization of small and independent business enterprises engaged in trade or commerce.

SEC. 2. Reduction in rate of normal tax on first $25,000 of corporate income.

(a) Reduction in rate: Section 11 (b) (2) of the Internal Revenue Code of 1954 (relating to normal tax on corporations for taxable years beginning after June 30, 1958) is amended to read as follows:

"(2) Taxable years beginning after June 30, 1958: In the case of a taxable year beginning after June 30, 1958, the normal tax is equal to—

"(A) 20 percent of so much of the taxable income as does not exceed $25,000, plus

"(B) 25 percent of the amount by which the taxable income exceeds $25,000."

(b) Technical amendments:

(1) Paragraph (2) (B) of section 244 of such Code (relating to deduction for dividends received on certain preferred stock) is amended by striking out "section 11" and inserting in lieu thereof "subsections (b) (2) (B) and (c) of section 11."

(2) Paragraph (2) (B) of section 247 (a) of such Code (relating to dividends paid on certain preferred stock of public utilities) is amended by striking out "section 11" and inserting in lieu thereof "subsections (b) (2) (B) and (c) of section 11."

(3) The rates of normal tax imposed by section 821 of such Code on the income of certain mutual insurance companies and interinsurers are hereby reduced in a manner which corresponds to the reduction made by subsection (a) of this section; and the Secretary of the Treasury or his delegate shall prescribe a table showing the rates of normal tax under such section 821 resulting from such reduction for taxable years beginning after June 30, 1958.

(4) Paragraph (2) (B) of section 922 of such Code (relating to special deduction for Western Hemisphere trade corporations) is amended by striking out "section 11" and inserting in lieu thereof "subsections (b) (2) (B) and (c) of section 11."

SEC. 3. Depreciation of used property.

(a) Section 167 (c) of the Internal Revenue Code of 1954 (relating to limitations on use of certain methods and rates of depreciation) is amended—

(1) by striking out the period at the end of paragraph (2) and inserting in lieu thereof ", or"; and

(2) by adding at the end thereof the following:

"(3) acquired after December 31, 1956, if the original use of such property does not commence with the taxpayer, and the use of such property by the taxpayer commences after such date.

Paragraph (3) shall apply to property acquired in any taxable year only to the extent that the basis of such property (determined as of the close of the day of its acquisition), when added to the basis of all other property described in such paragraph (determined as of the close of the day of its acquisition) which is acquired by the taxpayer during the same taxable year, does not exceed $50,000."

(b) The amendments made by this section shall apply to taxable years beginning after December 31, 1957.

SEC. 4. Deduction for additional investment in depreciable assets and inventory.

(a) Allowance: Part VI of subchapter B of chapter 1 of the Internal Revenue Code of 1954 is amended by adding at the end thereof the following new section:

"SEC. 178. Additional investment in depreciable assets and inventory.

"(a) General rule: In the case of any person engaged in a trade or business, there shall be allowed as a deduction for the taxable year an amount equal to the additional investment in the amount of $5,000 or 20 percent of the net income of such trade or business for the taxable year (computed without regard to this section), whichever is the greater: *Provided, however,* That the total amount of any such deduction shall not exceed $30,000 for any taxable year.

"(b) Additional investment defined: For purpose of this section, the additional investment in a trade or business for a taxable year means the amount (if any) by which—

"(1) the aggregate, computed as of the close of the taxable year, of the adjusted bases of—

"(A) all property used in the trade or business of a character which is subject to the allowance for depreciation provided in section 167, and

"(B) all stock in trade and property held primarily for sale to customers in the ordinary course of the trade or business, exceeds—

"(2) a similar aggregate, computed as of the beginning of such taxable year.

"(c) Special rules:

"(1) More than one business under common control: If more than one trade or business is under the control of the same person or persons, all such trades and businesses shall be treated as one trade or business for purposes of this section.

"(2) Partnerships, trusts, estates, etc.: The Secretary or his delegate shall prescribe such regulations as may be necessary for the application of this section, including regulations as to its application in the case of partnerships, trusts, and estates."

(b) Technical amendment: The table of sections for such part VI is amended by adding at the end thereof the following:

"Sec. 178. Additional investment in depreciable assets and inventory."

(c) Effective date: The amendments made by this section shall apply to taxable years beginning after December 31, 1957.

SEC. 5. Election of corporations to be taxed as partnerships.

(a) Election allowed: Subchapter R of chapter 1 of the Internal Revenue Code of 1954 (relating to election of certain partnerships and proprietorships as to taxable status) is amended—

(1) by striking out the heading and table of sections for such subchapter and inserting in lieu thereof the following:

"SUBCHAPTER R—ELECTION OF CERTAIN PARTNERSHIPS, PROPRIETORSHIPS, AND CORPORATIONS AS TO TAXABLE STATUS

"Part I. Alternative taxable status of certain partnerships and proprietorships.
"Part II. Alternative taxable status of certain corporations.

"Part I—Alternative taxable status of certain partnerships and proprietorships

"Sec. 1361. Unincorporated business enterprises electing to be taxed as domestic corporations.";

and

(2) by inserting after section 1361 a new part as follows:

"Part II—Alternative taxable status of certain corporations

"Sec. 1371. Certain corporations electing to be treated as partnerships.

"SEC. 1371. Certain corporations electing to be treated as partnerships.

"(a) General rule: Subject to the qualifications in subsection (b), a domestic corporation may not later than 60 days after the close of its first taxable year, or the year of a change of ownership described in subsection (f), elect, in accordance with regulations prescribed by the Secretary or his delegate, to be treated as a partnership for such year and all subsequent years, if all the shareholders owning stock in such corporation at any time on or after the first day of such year and on or before the date of the election consent to the election.

"(b) Qualifications: The election described in subsection (a) may not be made by a domestic corporation unless at all times during the period on or after the first day of its first taxable year or of the year described in subsection (f), as the case may be, and on or before the date of election—

"(1) such corporation has 10 or less shareholders all of whom are individuals (including all partners of any partnership owning stock in such corporation);

"(2) all the shareholders are actively engaged in the conduct of the business of such corporation;

"(3) no shareholder of such corporation is a nonresident alien or a foreign partnership;

"(4) such corporation is not a corporation which was a party to a reorganization described in section 368 (b), or a corporation to which section 355 (or so much of section 356 as relates to section 355) applies and such corporation has not received a distribution under section 332 (relating to liquidations of subsidiaries) except in a case in which the basis of the assets distributed is determined under section 334 (b) (2);

"(5) such corporation has only one class of stock; and

"(6) no more than 80 percent of the stock of such corporation is owned by persons who formerly owned the business of such corporation as an unincorporated enterprise taxable as a domestic corporation under section 1361.

"(c) Partnership provisions applicable: Under regulations prescribed by the Secretary or his delegate, a domestic corporation making the election under subsection (a) shall be considered a partnership for purposes of this subtitle (except chapter 2 thereof) and shall be subject to subchapter K (section 701 and following, relating to partnerships) with respect to formation, operation, distributions, liquidation, sale of an interest, and any other purpose; and each shareholder of such corporation shall be considered a partner owning an interest in the partnership in the proportion which shares owned by such shareholder bear to the total number of outstanding shares of such corporation.

"(d) Limitation: An employee of a corporation making the election described in subsection (a) who is also a shareholder of such corporation shall not be considered an employee for purposes of section 401 (a) (relating to employees' pension trusts, etc.).

"(e) Election irrevocable: Except as provided in subsections (f) and (h), the election described in subsection (a) by a domestic corporation shall be irrevocable with respect to—

"(1) the electing corporation and its shareholders; and

"(2) any corporate successor to the business of the electing corporation and the shareholders of such successor.

"(f) Change of ownership: In the first year in which the shareholders who consented to the election described in subsection (a) own 80 percent or less of the stock of a corporation described in subsection (e), such corporation shall not be treated as a partnership for such year or for subsequent years, unless such corporation makes a new election in accordance with the provisions of subsection (a).

"(g) Constructive ownership: For purposes of subsections (b) (6) and (f), the ownership of a stock interest shall be determined in accordance with the rules for constructive ownership of stock provided in section 267 (c) other than paragraph (3) thereof.

"(h) Disqualification: If a corporation described in subsection (e) issues stock of a different class than that outstanding, the election described in subsection (a) shall be deemed never to have been made and the corporation shall be liable for all taxes due (except penalties) and such taxes may be assessed and collected as if no return had been filed.

"(i) Cross reference:

"For period of limitations on assessment and collection of tax where no return has been filed, see section 6501."

(b) Technical amendments:

(1) Section 1361 (b) of such code (relating to unincorporated business enterprises electing to be taxed as domestic corporations) is amended—

(A) by striking out "and" at the end of paragraph (3);

(B) by striking out the period at the end of paragraph (4) and inserting in lieu thereof "; and"; and

(C) by adding at the end thereof a new paragraph as follows:

"(5) no proprietor or partners having more than 80 percent interest in the profits or capital of such enterprise formerly owned stock in a corporation treated as a partnership under section 1371 which carried on the business of such enterprise."

(2) Section 1504 (b) of such Code (relating to definition of includible corporation) is amended by adding at the end thereof a new paragraph as follows:

"(8) Corporations subject to tax as partnerships under section 1371."

(3) The table of subchapters for chapter 1 of such Code is amended by striking out

"Subchapter R. Election of certain partnerships and proprietorships as to taxable status."

and inserting in lieu thereof

"Subchapter R. Election of certain partnerships, proprietorships, and corporations as to taxable status."

(c) Effective date: The amendments made by this section shall apply to taxable years beginning after December 31, 1957.

SEC. 6. Installment payments of estate tax.

(a) Allowance: Subchapter A of chapter 62 of the Internal Revenue Code of 1954 (relating to place and due date for payment of tax) is amended by adding at the end thereof a new section as follows:

"SEC. 6157. Installment payments of estate tax.

"(a) Estates consisting of stock or investments in closely held business enterprises:

"(1) Election to make installment payments: The executor of any estate described in paragraph (2), which is subject to the tax imposed by chapter 11, may elect to pay the amount of such tax in 2 or more (but not more than 10) equal installments.

"(2) Estates to which election applies: Paragraph (1) shall apply to an estate only if one-half or more of the value of the gross estate consists of stock or investments in a closely held business enterprise.

"(3) Closely held business enterprise: For purposes of paragraph (2), the term 'closely held business enterprise' means—

"(A) a business corporation having 25 or less stockholders, and

"(B) a business partnership having 25 or less partners.

"(b) Date for payment of installments: If an election is made under subsection (a), the first installment shall be paid on the date prescribed for payment of the tax by section 6151, and each succeeding installment shall be paid 1 year following the date for payment of the preceding installment.

"(c) Proration of deficiency to installments: If an election has been made under subsection (a) and a deficiency is assessed, the deficiency shall be prorated to the installments remaining unpaid on the date of such assessment, and the part of the deficiency so prorated to each such installment shall be collected at the same time and as a part of such installment.

"(d) Installments paid in advance: At the election of the executor, any installment, or part thereof, under subsection (a) may be paid prior to the date prescribed for its payment by subsection (b).

"(e) Acceleration of payments: If any installment under subsection (a) is not paid on or before the date prescribed for its payment by subsection (b), the whole of the unpaid tax shall be paid upon notice and demand from the Secretary or his delegate."

(b) Technical amendments:

(1) The table of sections for such subchapter is amended by adding at the end thereof the following:

"Sec. 6157. Installment payments of estate tax."

(2) Section 6161 of such Code (relating to extension of time for paying tax) is amended by redesignating subsection (d) as subsection (e), and inserting after subsection (c) a new subsection as follows:

"(d) Installment payment of estate tax: In any case in which an executor has elected under section 6157 to pay the tax imposed by chapter 11 in installments, subsection (a) (2) shall not apply to the amount determined by the executor as the tax imposed by chapter 11, and subsection (b) shall not apply to the amount determined as a deficiency with respect to any such tax."

(3) Section 6601 (c) (2) of such Code (relating to determination of last date prescribed for payment of tax) is amended by striking out "6152 (a)" and inserting in lieu thereof "6152 (a) or 6157 (a)," and by striking out "6152 (b)" and inserting in lieu thereof "6152 (b) or 6157 (b), as the case may be."

(c) Effective date: The amendments made by this section shall apply with respect to estates of decedents dying after December 31, 1957.

It is recognized that world conditions will in all probability require increased spending to insure survival of freedom. We should join in whatever action is required to protect our freedom and insure survival of our form of government. Measures that would enhance the opportunities for survival, expansion, and growth of small, independent, competitive enterprises are insurance policies directed to that end. Without the survival and expansion of the 4 million business enterprises in this country, most of which are small-business concerns, our effort to defend ourselves, protect our freedom, and insure our survival will be hindered seriously.

Recently the House Small Business Committee held public hearings on the problems of small-business financing. The witnesses included an impressive array of high policy-making Government officials, including the Secretary of the Treasury and the Chairman of the Federal Reserve Board, as well as prominent financial experts in private life. They were almost unanimous in the statement that one of the most serious problems of small-business financing is that of the tax burden on the very small concerns. They pointed out that while the large corporations have access to capital through large, well-organized, nationally known facilities, the small-business concern, in contrast, is without such facilities. The small concern must rely upon what it can retain from its earnings for investment in plant and equipment to meet the demands for survival, expansion, and growth.

Throughout the period since the 1st session of the 85th Congress adjourned, the Select Committee on Small Business of the United States Senate has held extensive hearings at various locations across the country about the tax problems of small business. It heard numerous witnesses. Those witnesses confirmed the points made by the witnesses who appeared before the House Small Business Committee. They are in agree-

ment that one of the principal problems faced by small business today is the oppressive tax burden on the very small concern.

On May 31, 1956, the President of the United States appointed a Cabinet Committee on Small Business to investigate the economic condition of small business enterprises and to make suggestions for a constructive program, both legislative and administrative, for expanding the opportunities of small business to prosper and grow. On the basis of the investigation made by that committee, it submitted a report with recommendations on August 7, 1956. Recommendations were made for tax adjustments and for a small business tax bill that would help small firms retain earnings for financing expansion, to give them some advantage in pricing, and generally encourage the formation of new businesses. The four principal recommendations made in that respect were:

First. That the taxes imposed on business corporations be modified by reducing the tax rate from 30 percent to 20 percent on incomes up to $25,000.

Second. That businesses be given the right to utilize, for purchases of used property not exceeding $50,000 in any one year, the formulas of accelerated depreciation that were made available to purchasers of new property by the Internal Revenue Code of 1954.

Third. That corporations with, say, 10 or fewer stockholders be given the option of being taxed as if they were partnerships.

Fourth. That the taxpayer be given the option of paying the estate tax over a period of up to 10 years in cases where the estate consists largely of investments in closely held business concerns.

The small business tax bill we have introduced would carry out those four recommendations. In addition, our bill would provide that:

In the case of any person engaged in a trade or business, there shall be allowed as a deduction for the taxable year an amount equal to the additional investment in the amount of $5,000 or 20 percent of the net income of such trade or business for the taxable year (computed without regard to this section), whichever is the greater: *Provided, however,* That the total amount of any such deduction shall not exceed $30,000 for any taxable year.

Some members of the House Small Business Committee are appearing before the Ways and Means Committee urging favorable consideration of proposals that wold give tax relief to small business. Tax relief such as is provided for in this bill is urged in testimony being presented to the Ways and Means Committee.

In the testimony I am to present to the Ways and Means Committee, I shall sum up the explanations of the provisions contained in the bill we have introduced. Also, I shall detail the reasons why the tax adjustments provided for in this bill are not only just but are required at this time if we are to have a flourishing, competitive society and a healthy small-business segment of our economy such as we often express to be our objective.

Again, it is emphasized that 4 of the 5 provisions contained in the tax bill we have introduced were recommended by the President's Cabinet Committee on Small Business in its report on August 7, 1956. Those recommendations were made by quite conservative men, members of the President's own Cabinet. Their recommendations were conservative when made; and they are conservative now.

Of course, the view now will be expressed that today no adjustments should be undertaken in our tax structure. The argument will be made that it will cost too much money. It does appear that this tax bill will cost money if you take into account only the narrow question of what the revenue loss will be immediately and ignore what practical economic consequences will follow enactment of this bill.

The view is widely held in testimony by Members of the Congress and members of the financial and business community that tax adjustments such as we are proposing can be expected to eventually pay off in increased tax revenues.

Mr. CURTIS of Missouri. Mr. Speaker, will the gentleman yield?

Mr. PATMAN. I yield to the gentleman from Missouri.

Mr. CURTIS of Missouri. Mr. Speaker, I want to commend the gentleman for his statements. I look forward to his appearance before the Committee on Ways and Means at which time he will expound on these matters further.

Further I want to comment that a subcommittee of the committee of which the gentleman is chairman, the Joint Economic Committee, has pointed out that tax revision is necessary in these times; if we do not make necessary revisions to remove impediments to growth, we well might lose the very revenue that we are counting upon. I believe that in this particular area to which the gentleman has called attention, the area of small businesses, we need to make revisions or we will lose this revenue. I know that the gentleman's Small Business Committee along with the Joint Economic Committee has weighed these matters carefully and has come to the conclusion that in the long run we will not lose revenue but will gain revenue through a revision of our tax structure in this area.

Mr. PATMAN. Mr. Speaker, I want to thank the gentleman from Missouri [Mr. CURTIS] for his contribution. The gentleman has been a very ardent and enthusiastic worker in the cause of small business. He has a small business tax bill himself with many provisions of which I am in agreement. I am not opposing any part of his bill. But this bill does not provide as much as the gentleman's bill or as much as some bills that have been introduced by other Members in the past, including myself, and even in this Congress, for the reason that we felt we could go this far consistently and have a reasonable hope of success in getting something done in this session of Congress. So that although it is not as much as is provided in other bills we believe that this will be of substantial help to small business concerns. I am glad to know that the gentleman is in accord with the objective of the bill. I am in accord with the objectives of his bill. I know that some of the provisions in this bill are similar to the provisions in the gentleman's bill.

I want to thank the gentleman for his contribution.

Mr. CURTIS of Missouri. Mr. Speaker, will the gentleman yield further?

Mr. PATMAN. I yield further.

Mr. CURTIS of Missouri. Mr. Speaker, I want further to commend the gentleman for pointing out a very basic thing. All of us, including the gentleman, who are concerned in this area, have no pride of authorship. All we are trying to do, as I know the gentleman has done, is to call attention to a serious area in which we need to do something. What we can do, how much we can do is a subject which the Committee on Ways and Means is going to have to consider in their consideration of these various proposals. Although I have a bill, to which the gentleman has kindly called attention, I am not wedded to that method or any other particular method. I do feel that we need to do something in this area and the contribution to our studies which the Small Business Committee of the House has made under the gentleman's chairmanship, is certainly welcome.

Mr. PATMAN. I thank the gentleman very kindly. The Committee on Ways and Means of the House is certainly one of the most important, if not the most important committee in the Congress of the United States. Their members work very hard.

I want to express myself, as I have expressed myself elsewhere, to the effect that the individual members of the Committee on Ways and Means are not properly equipped to do their jobs, and I can say the same thing for the individual Members of the House. However, referring specifically to the Committee on Ways and Means, that committee has so much to do with the revenues of the country, the tax laws, and many other intricate and complicated bills, that I think that each member of the Committee on Ways and Means should have an economist and in addition should have a well-qualified attorney to help him carry out his duties. I believe every Member of the House should have an administrative assistant who is an economist or who has knowledge of taxes, appropriations, and monetary matters so as to help the Members of the House.

These administrative assistants and the other assistants I have referred to as being necessary for the Committee on Ways and Means I think should be selected by the member himself so that the one selected will be obligated and responsible only to the member who selects him. I know we have good staffs on the committees. The Committee on Ways and Means has a wonderful staff, but I do not think it is sufficient. I believe the staff is necessarily under the jurisdiction of the chairman. I think the staff works more for the chairman and the committee generally and not specifically for any member. Therefore, I think it is very necessary that each member of the Committee on Ways and

Means have two additional people, someone qualified as an economist and someone qualified as an attorney to help him in carrying out his duties.

I personally appreciate the fact that I am associated with the gentleman from Missouri, not on the Committee on Ways and Means, because I am not on that committee and he is, but on the Joint Economic Committee. That is a committee composed of 7 Members of the House of Representatives and 7 Members of the United States Senate. We have had many fine hearings during the past few months. The gentleman from Missouri [Mr. CURTIS] has made a very fine contribution to all those hearings as a member of the subcommittee and has been very active as a member of the whole committee. I speak humbly as chairman of that committee. I am personally obligated for the fine service he has rendered.

AMERICA'S EDUCATIONAL PROBLEMS

The SPEAKER pro tempore (Mr. LOSER). Under previous order of the House, the gentleman from New Jersey [Mr. ADDONIZIO] is recognized for 5 minutes.

Mr. ADDONIZIO. Mr. Speaker, in the light of recent Russian advancements in science and technology; the important meeting of the member nations of NATO; and the pending legislation before this Congress, I rise to present a consideration of some of the challenges, particularly in the field of education, which America faces as a nation and as one of the leaders of the free world.

The realization of the speed of the times of which we are a part has been thrust upon us, for during the short period since the adjournment of the Congress, the world has witnessed two products of far-reaching scientific and technological advancement.

The advances of the Soviet Union in science and technology, symbolized by the presence of two sputniks in outer space, command the attention of the United States. It would be an enormous task to attempt to outline all of the far-reaching implications of the sputniks. But one point, I think, is apparent even to the most optimistic observer—the unprecedented Russian advancements in science and technology dramatize the emphasis which the Soviet Union has placed upon the training of technical people and on scientific education. If the United States is to compete with the Soviet Union in the race for the exploration of outer space, as well as maintain our democratic way of life and our leadership of the free world, we must be acutely aware of the Soviet scientific training and of the compelling need to increase the number of graduates in science in our country. In addition to meeting the worldwide competition in scientific advances, we must also recognize man's dependence upon science for survival.

It is unfortunate that some Americans needed a Russian sputnik to make them realize how vital education is in a dynamic era of scientific advancement. All Americans, however, have not been unaware of the importance of education to the welfare of a free nation. As far back as 1953, one of our university presidents stated:

> In the final analysis there is no substitute for the qualitative development of our best brains. Our foreign and military policy has no better ally than the educational system. In any assessment of American power, higher education has the same stature as our system of food production, our industrial organization, or our system of defense.

Again and again, we have been cautioned by scientists, leaders, and educators to remember that our Nation's future levels of productivity, future governmental development, future economic achievements and future scientific, military and cultural achievements are dependent upon the products of today's classrooms.

Yet, only a few short weeks ago, while Sputnik I beeped its way around the earth at a phenomenal speed, some people frantically asked questions as to why such an accomplishment was made by the Soviet Union before the United States. These very people in many instances had paid little or no attention to studies and reports which continued to show America's need for the well-trained person and her precarious lead in the training of scientists and engineers. Today we are faced with a definite challenge: A challenge to produce well-trained people in all fields who will help to increase the value of the American way of life and the quality of American production.

Facts and figures have been widely circulated. Suddenly every one seems to be aware of an educational challenge and many off-the-cuff solutions have been proposed. The theme of many newspapers has become "education is the thing this year." In the light of recent Soviet developments we have a new comprehension that education must be the concern of all people who want to maintain their individual freedom and way of life.

Efforts are being made to evaluate our educational system. Some have attempted to compare our educational system with the Soviet educational system and have suggested the reorganization of the United States educational system in the light of such comparisons. I caution the supporters of this plan of action to remember that the Soviet educational system is a product of a totalitarian society, and the American educational system is the product of a free society. As such they would inherently differ, each having been developed to meet the specific needs of a particular type of society.

In America, the educational system is composed of 48 separate State school systems. The Soviet Union has a national education system which dictates conformity to a program which intends only to expand the power of Russian communism. To propose that America catch up with Soviet Russia in certain phases of education by patterning after a system which has produced for one nation the answer for one particular need could come dangerously close to overlooking the fundamental upon which our American educational system is based—the concept of freedom.

With these factors in mind, we can realize that it is a fallacy for anyone to look to Washington and expect to receive some magic formula which will immediately bring each of the 48 State school systems into some predetermined national goal, or to expect students of certain abilities to be coerced into areas of study for which there is an expressed national demand. We can hope to acquaint the students of America, through guidance programs, cultural exposures, and certain specialized educational programs for the gifted, with America's need for the technically trained person, and the value of making thoughtful and wise choices of high-school subjects if they plan to pursue education beyond the high school. In a like manner, we must attempt to devise measures which will help to decrease the large number of students who do not go on to education beyond the high school because of financial reasons, or because of lack of motivation.

Perhaps most important of all, we must evaluate the quality of education in our schools and in our institutions of higher learning. We must study this evaluation in terms of the future development of our own educational system to meet the demands and needs of the times and of our society.

It is important that we realize the somewhat phenomenal educational accomplishments of the Soviet Union, such as their reduction of the national illiteracy rate from 60 to 70 percent in 1917 to about 1 out of 4 in 1956, and the increased number of Soviet graduates in engineering and science from about 30,000 in 1952 to 63,000 in 1955.

These figures in themselves issue a challenge. We must not, however, in the haste of producing, lose sight of the fact that our challenge is not necessarily to produce in numbers but to produce in quality as well.

I do not think that any informed person could deny that Americans need to exert allout efforts as we engage in a scientific race with the Soviet Union. Complacency, unfounded optimism, and a complete lack of a sense of urgency in these challenging times undoubtedly will prove detrimental to the welfare of the Nation and the free world.

I am by no means proposing speedup and crash programs of action which only push. We all know that waste, failures, national embarrassment, and ridiculous disagreements are the inevitable products of haste. Yet, there is a definite need for intensive, thorough, deliberate, and thoughtful planning. Now as never before, we have a need to include another "R" in the proverbial list of "R's." I refer to an "R" for reason.

Statistics show that if we are to maintain our lead, which is precarious at present, in the graduation of trained engineers and professional people, we must encourage most of our capable students to pursue education beyond the high school. It is no longer possible for American youth to float through high school, and in some instances 4 years of college, without any particular aim or direction other than to get a job that

pays well. The value of an education cannot be measured in terms of salaries, gifts, and awards.

The national need for additional qualified teachers, particularly in the exact sciences, and for technically and professionally trained manpower continues to exist. Perhaps one of the important points to emphasize is our need for well-qualified teachers. How will we fill the long list of vacancies with qualified, well-trained young people? Must we, too, resort to rewards for academic achievement such as was done in Soviet Russia where they reportedly award luxurious homes, handsome salaries, and chauffeurs or servants for outstanding scholasticism. Rather, we need to spend our time and efforts in the training, and retraining in some instances, of our young people in the purposes of education in a democratic society. We should accentuate and put new stress on American education as vital and necessary to better living, responsible citizenship, economic independence, and the general forward movement of the free world.

In the past, new scientific developments and adventures have created a need for international understanding, such as the freedom of the high seas, and national claims of certain polar regions. Perhaps one of the most complicated problems the Russia sputnik will develop is the control of outer space. A consideration of this problem will call for thinking extended beyond the usual realms to which we have become accustomed. Yet, the control of outer space is not a new problem but a modern extension of an old question.

How shall we educate people to the possibility of exploration of the moon and other planets? We must learn to develop open minds and always to think in terms of the times. Space travel has been, and surely will continue to be, an area for extensive study. The role of the behavioral sciences will become increasingly important as man attempts to expand and to increase his capacity for adjusting to new ideas and situations. Parents who wish to talk intelligently with their children will have to know something about space ships and rockets to the moon.

In every phase of life, we can perhaps find some ramifications of the expansion of science and technology, an expansion which has been significantly dramatized by tiny shiny objects in orbits beyond the earth's gravitational pull.

This new year, this Congress must provide legislation which will help to make education beyond the high school a reality for more of our capable students. During the first session, I proposed a student-loan bill (H. R. 4490) which offers a positive plan of action for needy and scholastically qualified students who desire to continue their post-high-school education. My loan bill would help enterprising students overcome their financial obstacle—the cost of higher education. I believe that my bill and similar proposals which are aimed at relieving some of America's educational problems, warrant the careful attention of the Congress. The speed of the times of which we are a part demand positive action based on calm reason and sound thinking.

PERSONAL ANNOUNCEMENT

Mr. CURTIS of Missouri. Mr. Speaker, I ask unanimous consent to address the House for 1 minute.

The SPEAKER. Is there objection to the request of the gentleman from Missouri?

There was no objection.

Mr. CURTIS of Missouri. Mr. Speaker, I simply want to make clear for the RECORD that I was not present when the vote was taken on the bill H. R. 9739, authorizing certain construction for the Department of the Air Force. Had I been present I would have voted "aye." I was making a speech at the Industrial College at Fort McNair.

LEAVE OF ABSENCE

By unanimous consent, leave of absence was granted to:

Mr. HILLINGS (at the request of Mr. AYRES) for today, January 15, through January 21, 1958, on account of official business.

Mr. CRETELLA (at the request of Mr. SADLAK) on account of illness.

Mr. SHEPPARD (at the request of Mr. MCCORMACK) for today, January 15, through January 19, 1958, on account of official business.

Mr. HAYS of Ohio (at the request of Mr. MCCORMACK) for an indefinite period, on account of official business.

SPECIAL ORDERS GRANTED

By unanimous consent, permission to address the House, following the legislative program and any special orders heretofore entered, was granted to:

Mr. BAILEY, for 30 minutes on Monday next.

Mr. ADDONIZIO, for 5 minutes today.

Mr. O'HARA of Illinois. Mr. Speaker, I ask unanimous consent that on the 13th day of February I may be permitted to address the House for 1 hour, at the conclusion of the legislative business, this being in commemoration of the 60th anniversary of the sinking of the battleship *Maine* which occurred on the 15th of February, but on that date the House will not be in session.

The SPEAKER. Is there objection to the request of the gentleman from Illinois?

There was no objection.

Mr. POWELL (at the request of Mr. ADDONIZIO), for 30 minutes on Wednesday, January 22, 1958.

Mr. PATMAN, for 30 minutes, on Monday next, to revise and extend his remarks and to include extraneous matter.

EXTENSION OF REMARKS

By unanimous consent, permission to extend remarks in the CONGRESSIONAL RECORD, or to revise and extend remarks, was granted to:

Mr. HOLLAND.

Mr. VANIK and include extraneous matter.

Mr. VURSELL and to include extraneous matter.

Mr. VAN ZANDT and to include extraneous matter.

Mr. BOSCH and to include extraneous matter.

Mr. MULTER (at the request of Mr. HARRISON of Virginia) and to include extraneous matter.

ADJOURNMENT

Mr. HARRISON of Virginia. Mr. Speaker, I move that the House do now adjourn.

The motion was agreed to; accordingly (at 3 o'clock and 22 minutes p. m.), the House adjourned until tomorrow, Thursday, January 16, 1958, at 12 o'clock noon.

EXECUTIVE COMMUNICATIONS, ETC.

Under clause 2 of rule XXIV, executive communications were taken from the Speaker's table and referred as follows:

1453. A letter from the adjutant general, Veterans of Foreign Wars of the United States, transmitting the proceedings of the 58th National Encampment of the Veterans of Foreign Wars of the United States, held in Miami Beach, Fla., August 25–30, 1957, pursuant to Public Law 249, 77th Congress (H. Doc. No. 305); to the Committee on Armed Services and ordered to be printed with illustrations.

1454. A letter from the Secretary of the Treasury, transmitting the Annual Report of the Exchange Stabilization Fund for the fiscal year ended June 30, 1957, pursuant to the Gold Reserve Act of 1934, approved January 30, 1934, as amended; to the Committee on Banking and Currency.

1455. A letter from the chairman, Council on Law Enforcement in the District of Columbia, transmitting a report of the official operations of the Council on Law Enforcement in the District of Columbia for the period January 1, to December 31, 1957, pursuant to the act entitled "An act to provide for the more effective prevention, detection, and punishment of crime in the District of Columbia," approved June 29, 1953; to the Committee on the District of Columbia.

1456. A letter from the Sergeant at Arms, United States House of Representatives, transmitting a statement in writing exhibiting the several sums drawn by him pursuant to sections 78 and 80 of title 2, United States Code, the application and disbursement of the same, and the balance, if any, remaining in his hands, pursuant to title 2, United States Code, section 84; to the Committee on House Administration.

1457. A letter from the Secretary of the Interior, transmitting a draft of proposed legislation entitled "A bill to amend the act terminating Federal supervision over the Klamath Indian Tribe by providing in the alternative for private or Federal acquisition of the part of the tribal forest that must be sold, and for other purposes"; to the Committee on Interior and Insular Affairs.

1458. A letter from the Assistant Secretary of the Interior, transmitting a proposed concession contract with Don Hummel, operating as the Mount McKinley National Park Co., which, when executed by the Director of the National Park Service, will authorize him to provide facilities and services for the public in Mount McKinley National Park, Alaska, for a period of 10 years from January 1, 1958, pursuant to the act of July 14, 1956 (70 Stat. 543); to the Committee on Interior and Insular Affairs.

1459. A letter from the Acting Chief Commissioner, Indian Claims Commission, transmitting a report that proceedings have been concluded with respect to the following claim: *The Blackfeet and Gros Ventre Tribes of Indians (Montana), Petitioners,* v. *The United States of America, Defendant* (docket No. 279 (1st claim, pars. 7–10)), pursuant to the Indian Claims Commission Act of August 13, 1946 (60 Stat. 1055; 25 U. S. C. 70t); to the Committee on Interior and Insular Affairs.

1460. A letter from the chairman, board of directors, Future Farmers of America, transmitting a report on the audit of the accounts of the Future Farmers of America for the fiscal year ended June 30, 1957, pursuant to Public Law 740, 81st Congress; to the Committee on the Judiciary.

REPORTS OF COMMITTEES ON PUBLIC BILLS AND RESOLUTIONS

Under clause 2 of rule XIII, reports of committees were delivered to the Clerk for printing and reference to the proper calendar, as follows:

Mr. COLMER: Committee on Rules. House Resolution 437. Resolution for consideration of H. R. 9739, a bill to authorize the Secretary of the Air Force to establish and develop certain installations for the national security, and for other purposes; without amendment (Rept. No. 1230). Referred to the House Calendar.

PUBLIC BILLS AND RESOLUTIONS

Under clause 4 of rule XXII, public bills and resolutions were introduced and severally referred as follows:

By Mr. TELLER:

H. R. 9994. A bill to establish a Commission To Study the Adequacy of Compensation for Real Property Acquired by the United States; to the Committee on Public Works.

By Mr. HILL:

H. R. 9995. A bill to extend the National Wool Act of 1954 (68 Stat. 910); to the Committee on Agriculture.

By Mr. ADDONIZIO:

H. R. 9996. A bill to authorize a revision of the boundaries of the Edison Laboratory National Monument, New Jersey, and for other purposes; to the Committee on Interior and Insular Affairs.

By Mr. BETTS:

H. R. 9997. A bill to protect the right of the blind to self-expression through organizations of the blind; to the Committee on Education and Labor.

By Mr. BYRD:

H. R. 9998. A bill to encourage and stimulate the production and conservation of coal in the United States through research and development by creating a Coal Research and Development Commission, and for other purposes; to the Committee on Interior and Insular Affairs.

By Mr. DAVIS of Georgia:

H. R. 9999. A bill to adjust the rates of basic compensation of certain officers and employees of the Federal Government, and for other purposes; to the Committee on Post Office and Civil Service.

By Mr. DAWSON of Utah:

H. R. 10000. A bill to amend the definition of dependent to permit working mothers and widowers to deduct amounts paid for care of children while parent is working and to correct present inequities in this provision; to the Committee on Ways and Means.

By Mr. DEMPSEY:

H. R. 10001. A bill to amend the act of July 31, 1953, relating to the Arch Hurley Conservancy District, Tucumcari reclamation project, New Mexico; to the Committee on Interior and Insular Affairs.

By Mr. FINO:

H. R. 10002. A bill to increase the amount of an individual's earnings which may be counted as the basis for his benefits under the old-age, survivors, and disability insurance program, and for other purposes; to the Committee on Ways and Means.

H. R. 10003. A bill to amend title II of the Social Security Act to provide that full benefits (when based upon the attainment of retirement age) will be payable to women at age 60; to the Committee on Ways and Means.

By Mr. FRIEDEL:

H. R. 10004. A bill to provide that the procuring of certain licenses and the payment of certain taxes shall not be required for buses carrying only schoolchildren or Boy Scouts or Girl Scouts for sightseeing purposes in the District of Columbia; to the Committee on the District of Columbia.

By Mr. GUBSER:

H. R. 10005. A bill to provide for the joint development of the waterpower resources of the Trinity River division, Central Valley project, California, by the United States and the Pacific Gas & Electric Co., to reduce expenditures of the United States, to increase revenues of the United States, to encourage the most widespread use of the power generated at the lowest possible rates to consumers consistent with sound business principles, and for other purposes; to the Committee on Interior and Insular Affairs.

H. R. 10006. A bill to authorize the Santa Cruz Harbor project, Santa Cruz, Calif.; to the Committee on Public Works.

By Mr. HYDE:

H. R. 10007. A bill to provide for a scientific study and research program for the purpose of developing increased and additional industrial uses of agricultural products so as to reduce surpluses of such products and to increase the income of farmers, and for other purposes; to the Committee on Agriculture.

By Mr. GRIFFIN:

H. R. 10008. A bill to amend title II of the Social Security Act to provide that the rental value of a parsonage shall not be included in determining the amount of a retired minister's outside earnings for the purposes of the work clause; to the Committee on Ways and Means.

H. R. 10009. A bill to provide for the reconveyance of certain surplus real property to Newaygo, Mich.; to the Committee on Government Operations.

By Mr. HERLONG:

H. R. 10010. A bill to amend the Federal Property and Administrative Services Act of 1949 to authorize the disposal of certain surplus property to public health agencies of a State, its political subdivisions and instrumentalities; to the Committee on Government Operations.

By Mr. HILL:

H. R. 10011. A bill to amend the Agricultural Adjustment Act of 1938 to allow acreage planted to the 1958 crop of winter wheat in excess of wheat acreage allotments to be considered in establishing such allotments for the future; to the Committee on Agriculture.

By Mr. JOHNSON:

H. R. 10012. A bill to amend the Watershed Protection and Flood Prevention Act, with respect to the valuation of intangible benefits from works improvement; to the Committee on Agriculture.

By Mr. JONES of Alabama:

H. R. 10013. A bill to provide for small-business disaster loans in areas affected by excessive rainfall; to the Committee on Banking and Currency.

By Mr. McCARTHY:

H. R. 10014. A bill to amend title II of the Social Security Act to permit, under certain conditions, the extension of coverage by the insurance system established by such title to policemen and firemen of the State of Minnesota; to the Committee on Ways and Means.

H. R. 10015. A bill to continue until the close of June 30, 1959, the suspension of duties and import taxes on metal scrap, and for other purposes; to the Committee on Ways and Means.

H. R. 10016. A bill to extend for an additional 4-year period the provisions of the National Wool Act of 1954; to the Committee on Agriculture.

By Mr. McINTOSH:

H. R. 10017. A bill to prohibit Government agencies to acquire or use the National Grange headquarters site without specific Congressional approval; to the Committee on Public Works.

H. R. 10018. A bill to incorporate the Veterans of World War I of the United States of America; to the Committee on the Judiciary.

By Mr. McMILLAN:

H. R. 10019. A bill to protect the right of the blind to self-expression through organizations of the blind; to the Committee on Education and Labor.

By Mr. MAY:

H. R. 10020. A bill to amend title 10 of the United States Code with respect to the nomination of cadets and midshipmen for appointment to the service academies, and for other purposes; to the Committee on Armed Services.

By Mr. MILLS:

H. R. 10021. A bill to provide that the 1955 formula for taxing income of life-insurance companies shall also apply to taxable years beginning in 1957; to the Committee on Ways and Means.

By Mr. REED:

H. R. 10022. A bill to provide that the 1955 formula for taxing income of life-insurance companies shall also apply to taxable years beginning in 1957; to the Committee on Ways and Means.

By Mr. CURTIS of Missouri:

H. R. 10023. A bill to provide that the 1955 formula for taxing income of life-insurance companies shall also apply to taxable years beginning in 1957; to the Committee on Ways and Means.

By Mr. PHILBIN:

H. R. 10024. A bill establishing a general policy with respect to payments to State and local governments on account of Federal real property and tangible personal property by providing for the taxation of certain Federal property and for payments in connection with certain other Federal property, and for other purposes; to the Committee on Interior and Insular Affairs.

By Mrs. ST. GEORGE:

H. R. 10025. A bill to amend section 201 (c) of the Agricultural Act of 1949, as amended, relating to price supports on dairy products; to the Committee on Agriculture.

By Mr. SIKES:

H. R. 10026. A bill to amend the Internal Revenue Code of 1954 to allow a taxpayer an additional income-tax exemption for a dependent child who is a student above the high-school level; to the Committee on Ways and Means.

By Mr. SILER:

H. R. 10027. A bill to amend title II of the Social Security Act to provide that full benefits (when based upon the attainment of retirement age) will be payable to both men and women at age 60; to the Committee on Ways and Means.

By Mr. TEAGUE of Texas:

H. R. 10028. A bill to amend title II of the Veterans' Benefits Act to limit the closing or transfer of functions or activities of Veterans' Administration regional offices, or hospitals, homes, or centers; to the Committee on Veterans' Affairs.

By Mr. TEAGUE of Texas (by request):

H. R. 10029. A bill to provide a 2-year presumptive period of service connection for

organic heart disease which develops within 2 years from the date of separation from active service; to the Committee on Veterans' Affairs.

By Mr. TELLER:

H. R. 10030. A bill to allow a deduction for income-tax purposes of certain expenses incurred by the taxpayer for the education of a dependent; to the Committee on Ways and Means.

By Mr. THOMPSON of New Jersey:

H. R. 10031. A bill to provide for the appointment of an assistant to the Secretary of State to be known as the Assistant for International Cultural Relations; to the Committee on Foreign Affairs.

By Mr. WILLIAMS of Mississippi:

H. R. 10032. A bill to protect the right of the blind to self-expression through organizations of the blind; to the Committee on Education and Labor.

By Mr. BOSCH:

H. J. Res. 498. Joint resolution to establish the Hudson-Champlain Celebration Commission, and for other purposes; to the Committee on the Judiciary.

H. J. Res. 499. Joint resolution to provide for the issuance of a special postage stamp to commemorate the birth of Samuel Chester Reid; to the Committee on Post Office and Civil Service.

By Mr. ZELENKO:

H. J. Res. 500. Joint resolution to establish the Hudson-Champlain Celebration Commission, and for other purposes; to the Committee on the Judiciary.

By Mr. ANFUSO:

H. Con. Res. 237. Concurrent resolution expressing the friendship of the people of the United States for the people of Italy and expressing the hope that Italy will remain one of the free and democratic nations of the world; to the Committee on Foreign Affairs.

By Mr. BENTLEY:

H. Con. Res. 238. Concurrent resolution expressing the sense of the Congress with respect to the deferment from induction of schoolteachers under the Universal Military Training and Service Act; to the Committee on Armed Services.

By Mr. TEAGUE of Texas:

H. Res. 438. Resolution to provide funds for the investigations and studies made by the Committee on Veterans' Affairs pursuant to House Resolution 64 and House Resolution 65; to the Committee on House Administration.

By Mr. TOLLEFSON:

H. Res. 439. Resolution requesting the Secretary of State to secure an agreement with Japan to protect Alaska-spawned salmon; to the Committee on Foreign Affairs.

PRIVATE BILLS AND RESOLUTIONS

Under clause 1 of rule XXII, private bills and resolutions were introduced and severally referred as follows:

By Mr. BETTS:

H. R. 10033. A bill for the relief of Charles P. Lyon; to the Committee on the Judiciary.

By Mr. DOOLEY:

H. R. 10034. A bill for the relief of Anna Petrakakis Palatos; to the Committee on the Judiciary.

By Mr. HYDE:

H. R. 10035. A bill for the relief of Federico Luss; to the Committee on the Judiciary.

By Mr. JACKSON:

H. R. 10036. A bill for the relief of Ernest Lee (Lee Ming-Sing); to the Committee on the Judiciary.

By Mr. KEARNEY:

H. R. 10037. A bill for the relief of Miss Helga Albrecht; to the Committee on the Judiciary.

By Mr. McINTOSH:

H. R. 10038. A bill for the relief of Sumiko Imakuni; to the Committee on the Judiciary.

By Mr. PATTERSON:

H. R. 10039. A bill for the relief of Vincenza Biello; to the Committee on the Judiciary.

By Mr. WILSON of California:

H. R. 10040. A bill for the relief of Jerónimo Casas; to the Committee on the Judiciary.

H. R. 10041. A bill for the relief of Mary Stathacopoulos and Evangelia Stathacopoulos; to the Committee on the Judiciary.

By Mr. YATES:

H. R. 10042. A bill for the relief of Hsuan Wei; to the Committee on the Judiciary.

EXTENSIONS OF REMARKS

A Stamp To Commemorate the 175th Anniversary of the Birth of Capt. Samuel Chester Reid

EXTENSION OF REMARKS

OF

HON. ALBERT H. BOSCH

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Wednesday, January 15, 1958

Mr. BOSCH. Mr. Speaker, I have today introduced a resolution to issue a stamp commemorating the 175th anniversary of the birth of a distinguished American, Capt. Samuel Chester Reid.

Samuel Chester Reid was born in Norwich, Conn., on August 25, 1783, the son of a lieutenant in the British Navy. Young Reid, following in his father's footsteps, joined the United States Navy during the War of 1812 and soon after took command of a privateer, *General Armstrong*. During the Battle of Fayal in the Azores, Captain Reid proved his adroitness as a seaman by outmaneuvering the British ship *Carnation*, which was accompanied by a fleet of 12 landing craft and a crew of about 500. When it was evident that after another attack he would lose many men and possibly his ship, Reid scuttled the ship, thus losing only two men. Three hundred British were injured and their fleet severely battered. Due to Captain Reid's efforts, the British expeditionary force was late in reaching New Orleans and was unable to invade Louisiana before the treaty of peace was signed. Gen. Andrew Jackson was thus enabled to reach New Orleans first and triumph in one of the brighter events of the War of 1812. Without Capt. Samuel Chester Reid, the Northwest Territory might easily have become British land.

After resigning from the Navy, Reid became the first harbormaster of New York, established the first lightship at Sandy Hook, and established a semaphore system which quickly noted the arrival of ships.

At this time many States were being admitted to the Union and the original flag of 1 star and 1 stripe per State became highly unsatisfactory. A committee of the Congress prevailed upon Captain Reid to redesign the flag. Congress adopted his suggestion that stars representing the additional States be added to the blue field and that the stripes represent the Thirteen Original Colonies. Mrs. Reid had the distinct honor of sewing the first flag of this kind and it was flown over the United States Capitol on April 13, 1818.

When Captain Reid died in 1861, his grave was unmarked and his past deeds forgotten. Many years later when someone was going through old records of the Green-Wood Cemetery, it was brought to light that the burial place of this very great American had long gone unnoticed. Through the efforts of private citizens the Associated Granite Craftsmen Guild of Greater New York volunteered to erect a monument, and a shaft of perfectly matched pieces of granite marks his resting place. Former Secretary of the Navy, Charles S. Thomas, paid tribute to this Navy hero on October 28, 1956.

Mr. Speaker, it is my feeling that deeds of heroism and patriotism such as those of Samuel Chester Reid should not go unnoticed by the American people and I urge this body to support my resolution commemorating the 175th anniversary of his birth.

The Budget Message With Respect to REA

EXTENSION OF REMARKS

OF

HON. CHARLES W. VURSELL

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Wednesday, January 15, 1958

Mr. VURSELL. Mr. Speaker, the President is to be commended generally on his budget, as he has realistically met the pressing problems on the military and foreign front, and, of necessity, has called for reductions on less essential nonmilitary expenses on the home front.

I have been disappointed with the budget message with respect to REA, and have today introduced a resolution in cooperation with Congressman HORAN, of Washington, calling for a thorough study of the financing of this organization that has done so much not only for the farmers but for the economy of the Nation.

I felt such a study should be made as to the philosophy that underlies this nonprofit cooperative program which has been a godsend to the farmers of America and the economy of the Nation.

I am satisfied that before any serious changes are made with reference to REA that such a study should be made bringing out all of the facts, which will make

a further contribution to the economy of the Nation.

The Commission is empowered to make this study and make its recommendations to the President and the Congress by March 30, 1959.

Education Program

EXTENSION OF REMARKS
OF
HON. CHARLES A. VANIK
OF OHIO
IN THE HOUSE OF REPRESENTATIVES
Wednesday, January 15, 1958

Mr. VANIK. Mr. Speaker, America's crash education program to stimulate lagging scientific research and development efforts may crash before it gets off the ground.

The desperately needed school construction program is out. Although the classroom shortage is critical in the South and in the thousands of new suburban communities surrounding our large cities, this legislation is doomed on the integration issue. Unless integration is insured by law, segregated schools would be planned and built in the South.

The President's higher education scholarship program, providing scholarship funds for distribution by the several States on a matching basis, would unfortunately limit such scholarship awards to public institutions and deny the participation of privately endowed colleges which in the past have provided the bulk of higher educational opportunities.

I prefer to support a program stimulating higher education by, first, allowing a tax deduction up to $600 per year per dependent to taxpayers who send their dependents to college; second, establishing a Federal student loan fund for high-aptitude students pursuing higher education, particularly in essential and needed subjects; third, a grant-in-aid program providing tuition and support to exceptional students pursuing vital courses of study and pledging several years after graduation or completion of their studies to public research and development projects.

This type of program is better suited to our free enterprise system in that it would leave the selection of college to the individual student, provide no governmental interference with educational institutions, public and private, and at the same time provide equal opportunities to both public and privately endowed colleges to adjust to the current educational crisis. The program could be flexibly administered to favor educational training in demand and short supply.

Incentives for scholarship could be stimulated. Tax deductions, student loans and grants-in-aid could be limited to students with scholarship standards in the upper one-half of their classes. This would develop scholarship competition and force out the drones and space consumers in our scholastic systems. In this space age there is less and less room for space consumers.

We cannot continue to waste the vital natural resource of half-trained and underdeveloped American talent. We have the facilities—we have the aptitudes. We must give more recognition to achievement in the sciences, in the arts and humanities, in all fields. The potential to earn money alone is not enough to meet the challenges of today. We must encourage the development of scientists and scholars and scholarship in every way possible.

Veterans' Day, 1957

EXTENSION OF REMARKS
OF
HON. JAMES E. VAN ZANDT
OF PENNSYLVANIA
IN THE HOUSE OF REPRESENTATIVES
Wednesday, January 15, 1958

Mr. VAN ZANDT. Mr. Speaker, it was my privilege on November 11, 1957, to deliver the following address as part of the Veterans' Day celebration in my hometown of Altoona, Pa. The inspiring program was sponsored by the various veterans' organizations of Altoona and was an appropriate observance of Veterans' Day.

ADDRESS DELIVERED BY JAMES E. VAN ZANDT, MEMBER OF CONGRESS, 20TH DISTRICT OF PENNSYLVANIA, AT THE VETERANS' DAY CELEBRATION, 1957

I am highly honored by the opportunity to do my part in keeping alive the sacred traditions of this American holiday.

Armistice Day, which has been celebrated on November 11 since 1918, has been changed by law to Veterans' Day.

Originally marking the end of hostilities in World War I, Veterans' Day commemorates the services of those who fought in all the wars in which our country has been engaged.

As we assemble here today we dedicate ourselves to the commemoration of the patriotic service of all veterans.

The pattern of existence of our veterans organizations was set by the survivors of the Civil War in the Grand Army of the Republic.

Then followed the United Spanish-American War Veterans, the Veterans of Foreign Wars of the United States, the American Legion, the Disabled American Veterans, the AMVETS, and other groups.

Today it is a common thing to find veterans in all age brackets in all walks of life.

Our defenders in time of war are champions of peace, champions of sound stable government.

Today veterans everywhere are asking the people of this Nation to keep faith with those comrades who did not survive the horrors of war.

Veterans everywhere are asking that we renew our faith in the American ideals for which their comrades died.

On many occasions we turn to the old quotation which tells us that a man who has no regard for the past has no regard for the future.

The full effect of this truth grows upon us when we see it working out in human destiny.

When we safeguard the values of days gone by the happiness and richness of our lives are better established.

Historic shrines are meant to cultivate our capacity for the appreciation of the past.

Our own State of Pennsylvania and Blair County are dotted with historic shrines that we the citizens of the Keystone State take pride in showing our visitors.

Then, too, all Americans know of the Tomb of the Unknown Soldier in Arlington National Cemetery; Independence Hall in Philadelphia; Valley Forge; the Battlefield at Gettysburg; the Statue of Liberty in the New York Harbor; Mount Vernon, the home of George Washington; Monticello, the home of Thomas Jefferson; and the Lincoln Memorial in our National Capital.

Yes, the list of these historic shrines is endless.

As a matter of fact almost every city and town in the United States has a shrine, a statue, or a plaque which commemorates some event or person, which is part of our American tradition.

When Americans talk about cherished traditions of this great Republic we rarely have in mind a clear definition of the words we use.

We find in them a fitting cloak for the emotional sentiment we feel when we utter them.

Let me assure you that we are all firm believers in the glorious traditions of our great Republic.

We have demonstrated that fact by fighting for them in various wars.

These traditions represent the finest in thought and deed that veterans have fought and died for since the founding of this Nation.

All that is asked is that real meaning be given to these words, so that when we say them we have in mind a clear picture of our experience as a Nation. Yes, a deep-seated experience rather than a mere thrill of emotion, such as we feel when we see the flag raised or hear the Star-Spangled Banner.

Webster defines the word "tradition" as "a custom which has prevailed as from generation to generation."

This definition is clear enough, although some who use the term seem not to realize that a tradition is a living, moving, growing thing, not something absolute, unalterable, and forever fixed.

We often smile at young people who talk about "starting a new tradition."

But they are more than half right.

The world, as Thomas Jefferson took pains to emphasize, belongs to the living generation; and each new generation leaves its mark on the American tradition.

Tradition is not something that ended with Benjamin Franklin, or George Washington, or James Monroe, or Abraham Lincoln, or Herbert Hoover.

Tradition is constantly developing, whether we realize it or not.

At this very moment we are part of a tradition that will mark the era in which we live.

There are two fundamental concepts of American tradition that I have singled out for discussion with you.

First, the character of our people.

The character of our people is one of the great defenses of our Nation.

It was a people of strong character who built this Nation, but only a strong people can be trusted with our great power, privileges, and responsibilities.

One has only to read the history of early Pennsylvania, New England, Virginia, and

the Middle Atlantic settlements to be impressed by this fact.

Our forefathers were sturdy pioneers with a strong sense of righteousness, justice, and personal integrity. At the time of the War of Independence the majority of the Colonists had been brought up on the fundamental concepts of reverence, industry, frugality, and honesty. These concepts represented a stern philosophy, one that was strong and never weak.

The original settlers of this Nation, which included the English, Scotch, and Irish, were followed to this new Nation by freedom-seeking French, by Germans fleeing Prussian militarism, by Italians, Scandinavians, and others who saw the vision of liberty and opportunity. They were refugees from political and religious oppression, but they were not fugitives from high moral concepts and disciplined religious living.

There was something noble and great in these pioneering Americans which we, on this Veterans' Day need, if we are to emerge from the present chaos as a people worthy of survival. We need these stern qualities today which make character a firm alloy, compounded of human strength and divine grace, kindness and firmness, gentleness and ruggedness, and finally, a determination to live for and to enforce justice.

It is a fundamental truth that only men of majestic character can be trusted with their own destinies. Therefore it follows that if our American tradition is to endure we need a people of strong character.

My second emphasis is based on the premise that we believe in the right of a republic to survive and to grow. This does not mean that we should spend our lives and our fortunes in an effort to acquire new territory, but it does mean that we must be on guard to protect and defend our cherished American ideals of liberty and freedom.

In defending these ideals we must continue to face the danger, not only of individual death, but also of collective destruction.

It is only when we fully understand all the implications of atomic warfare that we shall acquire added courage and calm, together with a firm determination, to avert the senseless massacre of a conflict waged with atomic power. There is no illusion as to any ultimate victory to be gained by anyone in atomic warfare. Frankly, it is a suicidal enterprise. The death-dealing capabilities of atomic weapons move in a strange sphere. They are guilty of no geographic discrimination. If directed at us, there will be no security, even if we flee the city and move to the country. The remotest village in the Dakotas or in the Carolinas, the palace on the banks of the Ganges, the United States Capitol in Washington, and the Kremlin in Moscow, may all be total victims of such war.

Atomic weapons know no religious prejudices. They would destroy in even measure Catholic, Jew, Protestant, Moslem, Hindu, and heathen, believers and atheists, minister and congregation, club, labor union, and fraternity member. Atomic warfare has no color prejudice. White groups and brown, black or yellow would be victims without partiality or preference. Nor is social position in life recognized by atomic warfare. The president of the bank and the Union Square agitator, the scoundrel and the peace-loving citizen, the scientist and the dock laborer, the innocent and the guilty, all would be swept away.

We must all be imbued with the knowledge that atomic warfare means not just disaster or tragedy, but in large measure, it means total death.

We are now living in a moment of history when we must stay both alert and full of expectation.

Yes, we must be alert for every avenue that will promote peace.

Meanwhile we must wait, expect, promote, and feel sure about a grassroot movement toward self-preservation.

The preservation of the human race will be due to mankind's determination to dwell in peace with each other.

One may be sure that even behind the Iron Curtain there is no group willing to die wholesale for a dictator's mad scheme for world domination through atomic conflict.

Throughout the last decade, all over the world, the oppressed have been rising to demand their share in life.

This is the supreme challenge to Americans who not only believe in the American way of life, in the meaning and power of our Republic, but who also are grimly determined to prevent the world from self-destruction.

If the American people were ever given an outright clear-cut opportunity to decide on the question of communism, they would promptly vote "No."

The truth is that the issue of communism has never been presented to the people in any honest or manly fashion.

It is fed to us in small doses.

Communism presents itself to us in varied forms of disguise.

But communism dressed in gentleman's clothing, or in any other garb, is communism still.

Communism thinks of peace only in terms of death to our American way of life.

Like the leopard communism cannot change its spots.

Having returned recently from Russia, I know that behind the Iron Curtain there is no such thing as individual freedom.

In Russia freedom of speech, freedom of the press, freedom of thought, and every other freedom is denied the people.

The dictates of the Kremlin must be obeyed.

For the common people, and there are millions of them in Russia, only one rule is certain: They are tools of the state.

In Russia the people are told that liberty is the price of economic security.

In reality, behind the Iron Curtain the great masses of the people have neither liberty nor security.

From my own personal observations the Russian people are living in abject slavery and bound by the chains of a Communist dictatorship.

In the face of the great challenge that we are confronted with today, can we doubt for 1 minute that our form of government must survive and grow?

How can our Republic survive and grow if here in the United States at its source and center, as citizens we cannot reconcile its behavior with its theories and its ideals?

If we profoundly believe in the right of our form of government to survive and grow as a nation, we must stay united, utilize superhuman patience, and above all show superhuman ingenuity.

We must acquire a combination of grim courage and wise benevolence.

The ultimate objective of all Americans is universal peace.

In this burning desire for peace surely veterans who have known war firsthand desire it most.

As heirs of the traditions of the American form of government, all Americans on this Veterans' Day 1957 must rededicate themselves to the ideals of this Nation.

To those of us who are veterans, and who have already made sacrifices for the continuation of the American way of life, let me admonish you that there are further sacrifices demanded in the race for our survival as a nation.

In this connection let me repeat the warning of a great American, our President Theodore Roosevelt, whose 100th birthday anniversary is commemorated this year.

Teddy Roosevelt said: "The things that will destroy America are prosperity at any price, peace at any price, the love of soft living, and the get-rich-quick theory of life."

Ladies and gentlemen, that warning sounded by Teddy Roosevelt over 50 years ago is a grim prediction of the challenge this Nation faces today in the batle for survival.

If Teddy Roosevelt were alive today he would condemn those who are using partisan politics to advance their own interests, and at the expense of the Nation as a whole, and at a time when national unity was never at a greater premium.

He would remind us of our lack of national defense at Pearl Harbor in 1941 and again in Korea in 1950.

Even though we were unprepared at that time, all Americans united in support of the President of the United States, and petty partisan politics were consigned to the national ashcan.

Today our great Republic is again at the crossroads of its destiny.

This means that the crying need of the hour is not carping criticism but the traditional national unity for which this Nation is noted in time of national peril.

Therefore let me conclude my remarks by makng an earnest appeal to organizations such as yours in demanding that the decisions which concern the security of this Nation be removed from the political arena and decided in the good old American tradition of patriotism and love of country.

Let me add that as a united nation we can successfully meet any crisis; but, mark you, if we are torn asunder by political bickering we are virtually writing our own ticket for national ruin.

The Plight of the Postal Worker

EXTENSION OF REMARKS

OF

HON. ELMER J. HOLLAND

OF PENNSYLVANIA

IN THE HOUSE OF REPRESENTATIVES

Wednesday, January 15, 1958

Mr. HOLLAND. Mr. Speaker, during the last recess, I made it my business to visit a few post offices to see how the Government of the United States treats its employees, the postal workers.

I was interested in comparing the working conditions of those who carry on the services of the Government with those working in private industry.

As a former member of the General Assembly of Pennsylvania, and one interested in American labor, I introduced much legislation to improve the working conditions of those who toil in the mills and mines of the Commonwealth of Pennsylvania.

Much progress has been made in private employment through the cooperation of management and union representatives of labor, to improve the safety, the health, and the conditions under which employees work.

As one who has worked in the steel mills of Pittsburgh, I can well remember the lack of toilet facilities and, in some cases, where there were none at all.

I remember men leaving the mines and mills after a 12-hour day, in sweaty

clothes, and with the grease and grime of work still on their faces and clothing.

I have seen and heard women on streetcars complaining about having to sit next to workers in their dirty clothes.

These conditions have been corrected in private employment by labor and management through negotiations, and by the passing of safety, sanitation, health, and other necessary legislation by the various States.

These laws have resulted in giving to private employees the necessary toilet facilities based on the number of employees, and the washrooms are well policed so that cleanliness is kept at a high level.

Shower baths are provided in sufficient numbers so that, after a sweaty day, the worker can shower and change into his "going home" clothes with no fear of dirtying others against whom he may accidentally brush on his way home.

Dining rooms are afforded so that those who carry their lunches can sit at tables and eat rested and at ease.

Lighting in the working area is considered very important to the efficiency of the work turned out, and to avoid eyestrain of the employees.

Mr. Speaker, I could go on and elaborate the many, many advances made by private employers which not only improve the worker's efficiency, but which also strengthen his morale, his health, and his self-respect.

Mr. Speaker, I could go on and on, elaborating on this subject for I believe it spells out the difference between a loyal and appreciated employee and an indifferent one.

Mr. Speaker, the one employer in the United States who has made the least progress along these lines, and who is not living up to the laws of sanitation, health, and working conditions of our States, is the United States Government—Uncle Sam—especially with respect to those employed in the post offices of our Nation.

I find these unsatisfactory working conditions are not applicable to any one post office, but to all post offices.

If the same working conditions existed in private employment, inspectors from the labor and health departments of the States would be "hauling" the employers into courts and prosecuting them.

Many Congressmen would be attacking and making political hay for votes by exposing the employers and posing as the employees' champion.

Gentlemen, we must take our part of the blame.

We are the "Board of Directors." I ask every Member to visit the post offices in his district. This is what he will find:

A gloomy lighted interior.

Lighting of the 19th-century vintage that causes eyestrain, headaches, and which does not provide sufficient light to do a good job.

Toilet facilities that belong to a backward country, and with no thought of how many employees must use them.

In the Christmas rush, lines were formed outside of each washroom. In most cases, no attendant was on duty to see that they were kept clean, and that toilets were kept flushed.

There were not even enough washbasins to wash their hands.

Instead of a battery of showers in a bathroom of sufficient size in the largest post office in my own district, I found one little cubby hole set aside for a shower that had long lost its usefulness.

Lockers were jammed into a room so crowded you had to back out because there was not enough room to pass another person.

Even at that, employees were sitting on the floor and in corners eating their lunches, since there was no room in the so-called dining room.

A dark, dismal dining room consists of wooden benches and tables. Again it lacked an attendant to see that wrappings and leftovers were put in containers by the diners.

In the postal transportation department a penitentiary would look more inviting to work in. Again, there was not enough custodial help to have policing at all times. On the contrary, in the mills and factories of today, "the sweeper" is constantly sweeping up.

The lighting, the ventilation, and the dark, dirty walls and floors made this department the worst of all.

Mr. Speaker, in private establishments where there are hundreds of employees, at least a registered nurse, or a first-aid hospital is on hand every hour of the working week. In most cases, there is also a doctor. The Post Office Department does not concern itself with these so necessary services.

The local postmaster is not to blame. When economy is needed, the Postmaster General practices economy—on the physical requirements that are so needed to give an employee's place of employment a pleasant environment.

Local heads of post offices want to improve the working conditions of the men, but are always denied the necessary funds.

If the United States can lose millions of dollars carrying newspapers, magazines, periodicals, and so forth, they can give to their employees good working conditions and pay wages in line with private enterprise.

Congress should vote more money to carry on the postal service, but should mark it for wages and proper maintenance of post offices.

The postal rate of the mail which shows a big loss should be increased to absorb the cost of that particular class of mail.

Mr. Speaker, I have supported every increase in postal rates that has come before the Congress.

I do not believe in starvation wages for postal employees so that a large newspaper company or a large publishing house can make large profits. There should be no free riders.

Mr. Speaker, this is the physical aspect under which they work. But in addition, the post office employee, as well as the Government employee, is the lowest paid employee in comparison to others doing the same type work in private industry.

The financial condition of these employees is pitiful.

They must, if they have a family, work two jobs—or put their wives to work to meet obligations.

The postal worker's income is not sufficient to educate his children properly.

At night they can be found as gas attendants, working in community stores, attending bars, working at movie houses, working as laborers for contractors on their days off, and doing jack of all trades they can get to increase their income to buy clothes and food for their families.

The cost of living has gone up and up every month. Profits of companies who use the mails to carry on their business are at an all time high. Circulation of papers, magazines, and periodicals has increased. The wage of those employed in private industry has increased, but the postal workers are expected to continue to hold the line, for the President has stated, in vetoing legislation, that the small postal increase in wages would contribute to inflation. I have yet to hear the President request large corporations to cut their profits to stop inflation.

The Holland bill, H. R. 9658, would double the amount of the increase which was voted in the last session of Congress, thereby giving the postal worker $1,092 across the board. Although this amount does not compare to wages paid in industry, it may contribute enough to permit a postal worker to spend evenings with his family instead of working extra to support them.

But, of course, the postal worker is "hatched" and is denied the right to engage in political activity.

Mr. Speaker, in many of the talks I have had with the postal worker, I have said, and I quote:

> Remember, although you are "hatched," and are not permitted to engage in open political meetings, your father and mother are not "hatched," your brother and sister are not "hatched," your uncles and aunts are not "hatched," your in-laws are not "hatched," and above all, your sons and daughters and wives are not "hatched."

This is an election year. I hope they take my advice.

Warning

EXTENSION OF REMARKS

OF

HON. ABRAHAM J. MULTER

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Wednesday, January 15, 1958

Mr. MULTER. Mr. Speaker, during the week ending January 9, 1958, there were 324 business and commercial failures in this country as compared with 203 the previous week and 256 in the same week 1 year ago.